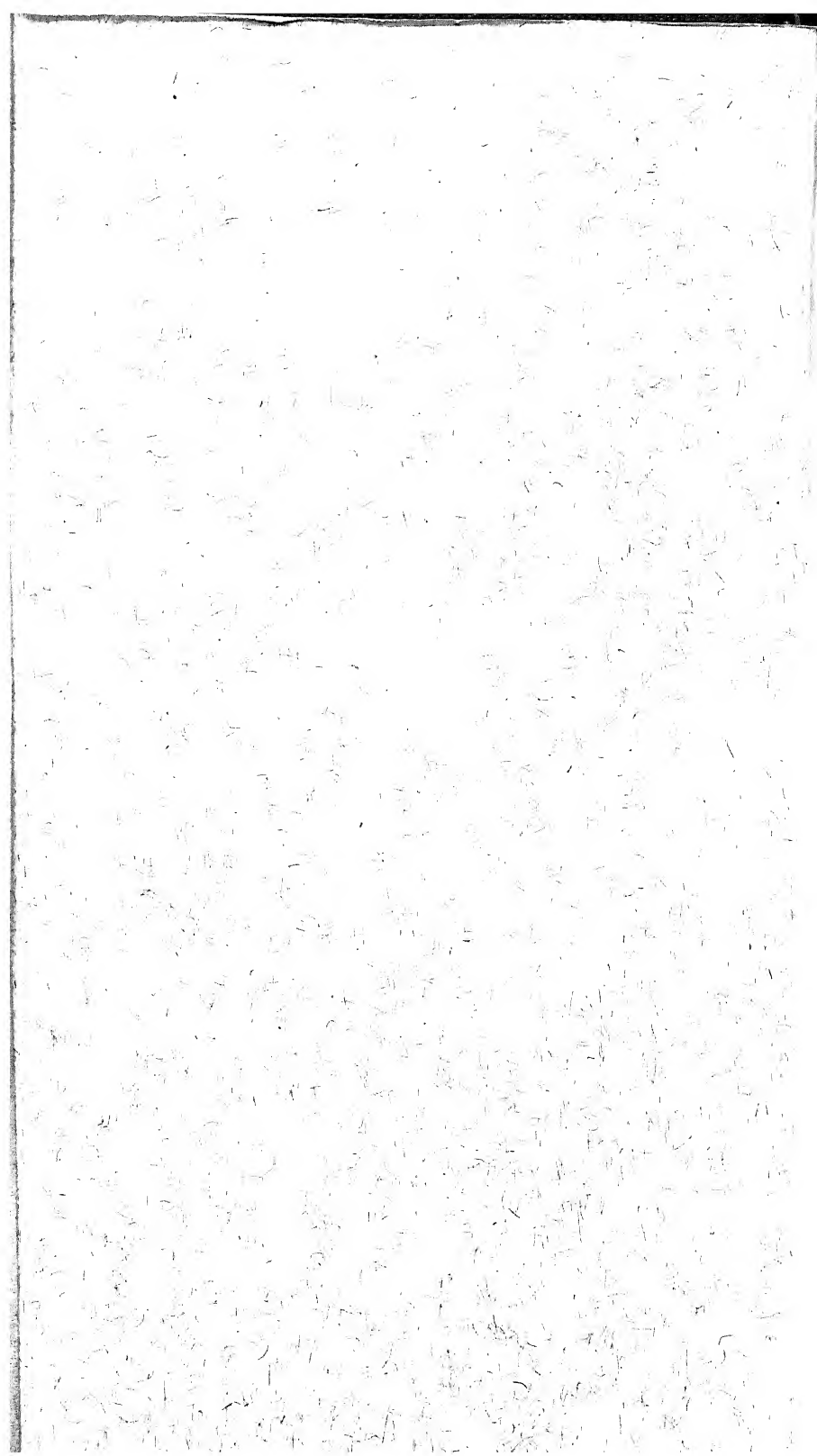


PROCEEDINGS
OF THE
ARISTOTELIAN SOCIETY
FOR THE
SYSTEMATIC STUDY OF
PHILOSOPHY

VOLUME 2

1892 - 1894





PROCEEDINGS
OF THE
ARISTOTELIAN SOCIETY
FOR THE
SYSTEMATIC STUDY OF PHILOSOPHY.

Publication Committee :

S. ALEXANDER.
B. BOSANQUET.
A. BOUTWOOD.

H. W. CARR.
S. H. HODGSON.
G. F. STOUT.

Editor :

Mr. A. F. SHAND.

Vol. 2.

Reprinted with the permission of The Aristotelian Society, London

JOHNSON REPRINT CORPORATION
111 Fifth Avenue
New York 3, New York

JOHNSON REPRINT COMPANY LIMITED
Berkeley Square House
London, W. 1

106
A71P
V. 2
1892/
1894

First reprinting, 1963, Johnson Reprint Corporation

AL

CONTENTS OF VOL. II.

In Three Numbers.

NUMBER 1.

Papers read before the Society during the Session, 1891-92.

	PAGE
Presidential Address: Matter—By Shadworth H. Hodgson	3
Symposium: Origin of the Perception of an External World	
—By the President, B. Bosanquet, and D. G. Ritchie, M.A.	26
The Permanent Meaning of the Argument from Design—By B. Bosanquet, M.A.	44
The Philosophical Pons—By the President	51
On the Meaning of Life—By Rev. W. L. Gildea, D.D.	65
Theories of Pleasure—By G. E. Underhill	77
Symposium: Is the Distinction between "Is" and "Ought" Ultimate or Irreducible—By Prof. Sidgwick, J. H. Muirhead, G. F. Stout, and S. Alexander	88
A General Analysis of Presentations, with a View to their Interaction—By G. F. Stout	107
Scotus Erigena: "De Divisione Naturæ"—By Clement C. J. Webb	121

NUMBER 2.

Papers read before the Society during the Session, 1892-93.

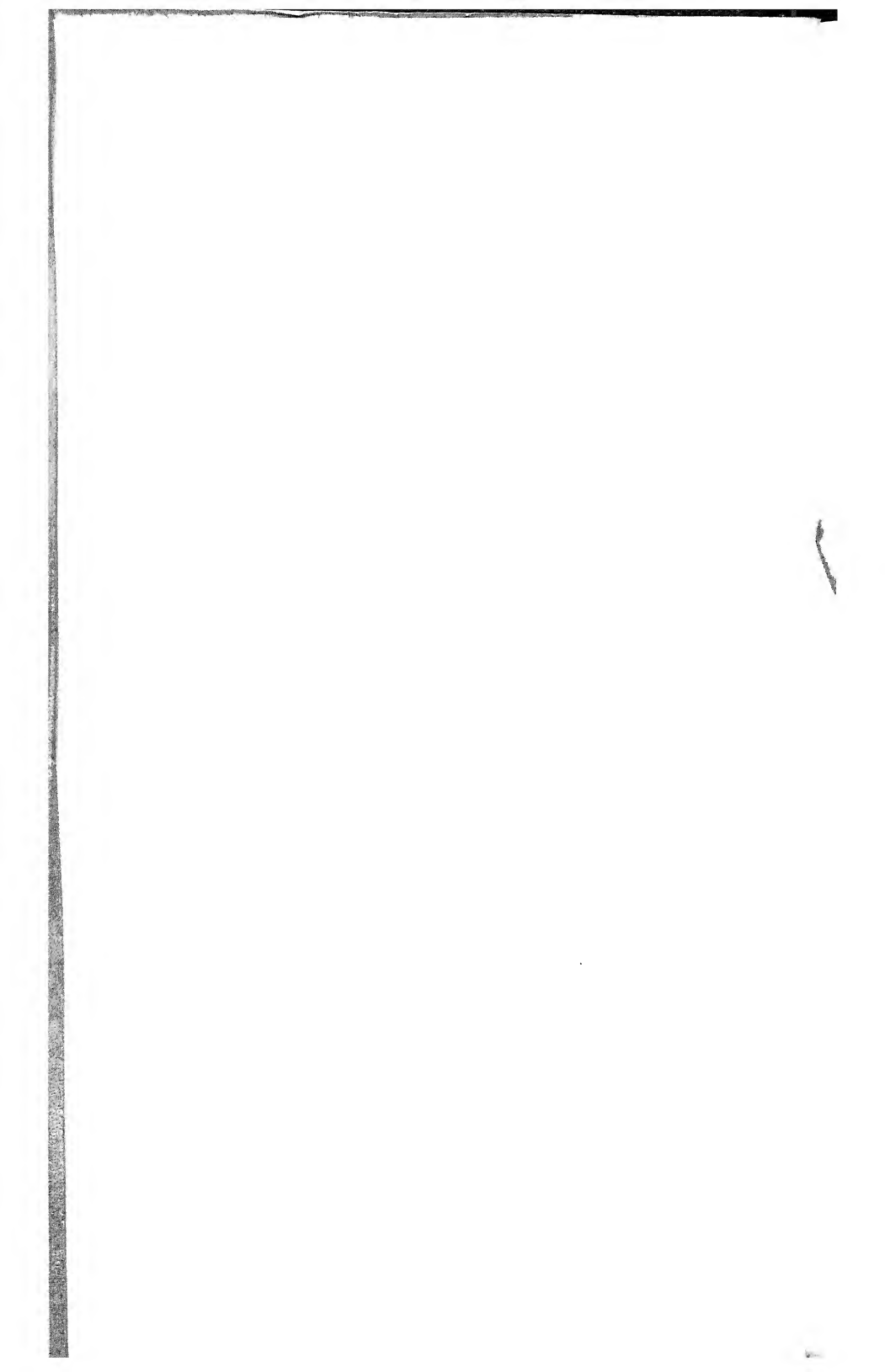
	PAGE
Presidential Address: Mind—By Shadworth H. Hodgson . . .	1
The Nature of Force and Matter—By R. J. Ryle, M.A. . . .	21
Symposium: Does Law in Nature Exclude the Possibility of Miracle?—	
I. By R. J. Ryle, M.A.	31
II. By Rev. C. J. Shebbeare, B.A.	34
III. By A. F. Shand, M.A.	39
The Measurement of Space, Time, and Matter—By Prof. A. G. Greenhill, F.R.S.	43
Symposium: Has the Perception of Time an Origin in Thought?—	
I. By S. Alexander	51
II. By G. D. Hicks	58
The Unifying Principle in the Moral Ideal—By Rev. C. J. Shebbeare, B.A.	68
Time-Measurement in its Bearing on Philosophy—By Shadworth H. Hodgson	77
John of Salisbury—By Clement C. J. Webb, M.A.	91
The Philosophy of Mr. Shadworth Hodgson—By G. F. Stout, M.A.	107
Symposium: Is Human Law the Basis of Morality, or Morality of Human Law?—	
I. By Prof. J. Brough, LL.D.	120
II. By D. G. Ritchie, M.A.	124
III. By G. F. Stout, M.A.	129

NUMBER 3.

Papers read before the Society during the Session, 1893-94.

PAGE

Presidential Address—By Shadworth H. Hodgson.	1
The Conception of Necessity as applied to Nature and to Man—By D. G. Ritchie, M.A.	19
Import of Categorical Propositions—By Miss E. E. C. Jones	35
Symposium: Is Religion Pre-supposed by Morality, or Morality by Religion?—	
I. By R. J. Ryle, M.A.	46
II. By C. C. J. Webb, M.A.	50
III. By A. F. Shand, M.A.	54
On Mr. F. H. Bradley's "Appearance and Reality"—By H. W. Carr	59
On the Ethical Interpretation of Life and Nature—By A. Boutwood.	73
Green and His Critics—By W. H. Fairbrother	99
Symposium: The Relation between Thought and Language—	
I. By Miss E. E. C. Jones	108
II. By J. S. Mann	113
III. By G. F. Stout	115
Epictetus—By R. J. Ryle	123
Symposium: The Nature and Range of Evolution—	
I. By H. W. Carr	132
II. By G. D. Hicks	137
On the Immateriality of the Rational Soul—By Dr. Gildea	151



INDEX TO VOL. II.

ALEXANDER, S.	..	..	"Is" and "Ought" ..	..	..	..	100
			Perception of Time ..	..	..	..	ii, 51
BOSANQUET, B.	..	..	External World ..	..	..	..	32
			Argument from Design ..	..	..	..	44
BOUTWOOD, A.	..	..	Ethical Interpretation of Life ..	..	..	..	iii, 73
BROUGH, Prof. J.	..	..	Law and Morality ..	..	..	..	ii, 120
CARR, H. W.	..	..	"Appearance and Reality" ..	..	..	..	iii, 59
			Evolution ..	..	..	..	iii, 132
FAIRBROTHER, W. H.	..	..	T. H. Green ..	..	..	..	iii, 99
GILDEA, Rev. W. L.	..	..	On Meaning of Life ..	..	..	..	65
			Soul ..	..	..	..	iii, 151
GREENHILL, Prof. A. G.	..	..	Measurement ..	..	..	..	ii, 43
HICKS, G. D.	..	..	Time ..	..	..	..	ii, 58
			Evolution ..	..	..	..	iii, 137
HODGSON, SHADWORTH H.	..	..	Origin of Perception of External World ..	..	..	..	26
			Philosophical Pons ..	..	..	..	51
			Mind ..	..	..	..	ii, 1
			Time-Measurement ..	..	..	..	ii, 77
			Infinity..	..	..	..	iii, 1
JONES, Miss E. E. C.	..	..	Categorical Propositions ..	..	..	..	iii, 35
			Thought and Language ..	..	..	..	iii, 108
MANN, J. S.	..	..	Thought and Language ..	..	..	..	iii, 113
MUIRHEAD, J. H.	..	..	"Is" and "Ought" ..	..	..	..	92
RITCHIE, D. G.	..	..	External World ..	..	..	..	35
			Law and Morality ..	..	..	..	ii, 124
			Necessity ..	..	..	..	iii, 19
RYLE, R. J.	..	..	Force and Matter ..	..	..	..	ii, 21
			Morality and Religion ..	..	..	..	iii, 46
			Miracle ..	..	..	..	ii, 31
			Epictetus ..	..	..	..	iii, 123
SHAND, A. F.	..	..	Morality and Religion ..	..	..	..	iii, 54
			Miracle..	..	..	..	ii, 39

SHEBBEARE, Rev. C. J.	..	Miracle..	..	..	..	..	ii, 34
		Moral Ideal	..	..	..	..	ii, 68
SIDGWICK, Prof. H.	..	"Is" and "Ought" ..	..	..	..		88
STOUT, G. F.	..	"Is" and "Ought" ..	..	..	..		96
		Presentations ..	..	..	..		107
		Hodgson's Philosophy	..	..	..	ii, 107	
		Law and Morality	..	..	..	ii, 129	
		Thought and Language	..	..	..	iii, 115	
UNDERHILL, G. E.	..	Theories of Pleasure ..	..	..	..		77
WEBB, C. C. J.	..	Scotus Erigena	..	..	..		121
		John of Salisbury	..	..	..	ii, 91	
		Morality and Religion	..	..	..	iii, 50	

PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

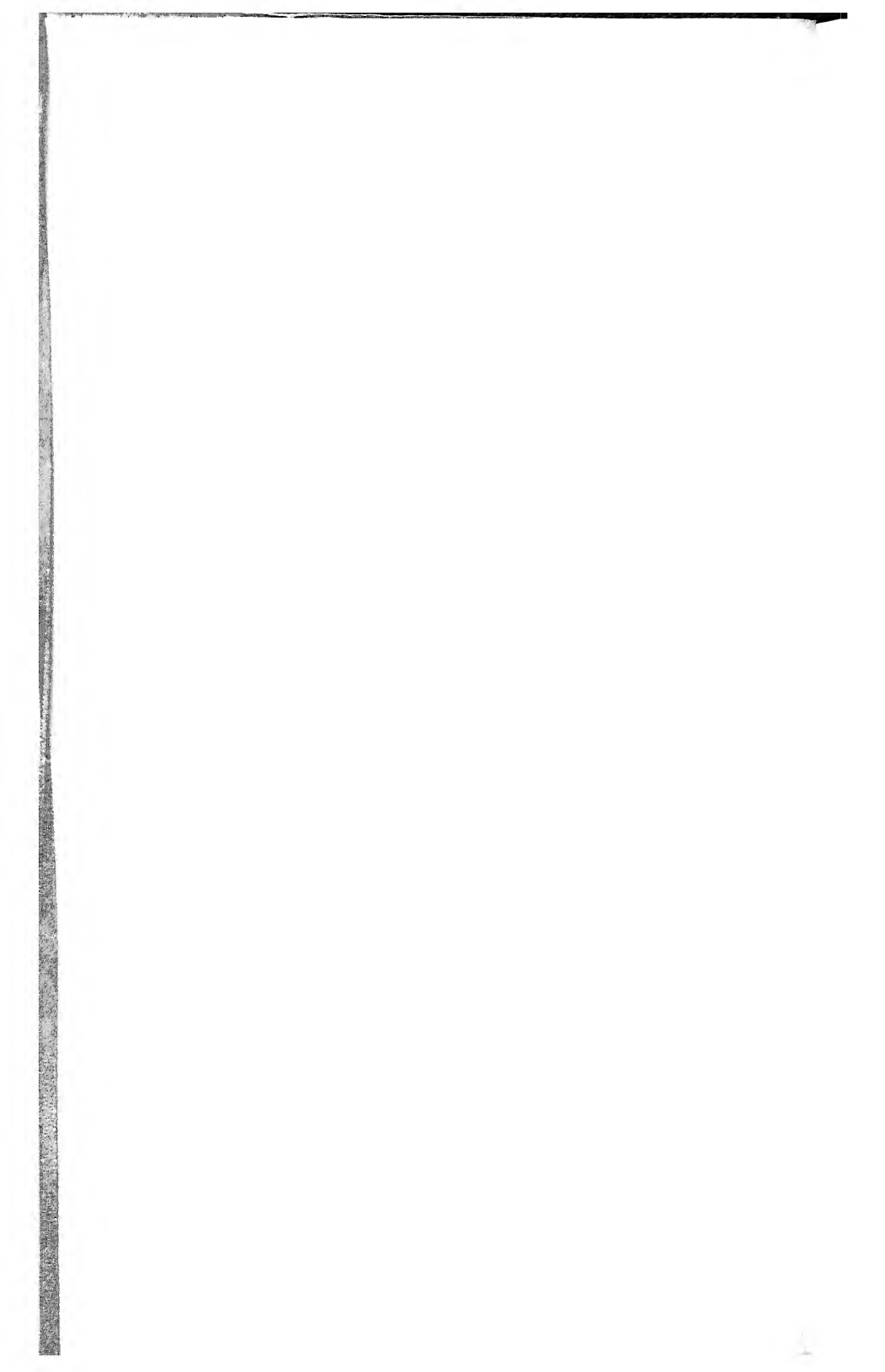
FOR THE

SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.
No. 1, Part I.

CONTENTS.

	PAGE
Presidential Address—Matter	3
Symposium—Origin of the Perception of an External World—By the President, B. Bosanquet, M.A., and D. G. Ritchie, M.A.	26
The Permanent Meaning of the Argument from Design—By B. Bosanquet, M.A.	44



PAPERS READ BEFORE THE SOCIETY

DURING THE SESSION 1891-92.

PRESIDENTIAL ADDRESS.—MATTER.

By SHADWORTH H. HODGSON, Hon. LL.D. Edinburgh, *Hon. Fellow of Corpus Christi College, Oxford; President.*

I.

It may seem somewhat of a leap from *Logic* and the *Laws of Association*, which some of my hearers may perhaps remember were the subjects of my two last annual Addresses, to *Matter*, which I have chosen as the subject of the present one. But in a field so comprehensive as Philosophy, when once we have got a clear general conspectus of its divisions and articulations, it may often be advantageous, for the purposes of a somewhat closer examination, to go directly from one distinctly marked division, or group of questions, to some other which stands in a marked contrast with it, thus approaching the subject of Philosophy as a whole from a diametrically opposite point of view.

The treatment of the subject, the method of approach and examination, will of course continue as before to be the treatment and method of philosophy. You will not expect from me a physicist's dissertation on potential and kinetic energy, the mechanical equivalent of heat, the medium and *modus operandi* of electricity, the ultimate structure of living protoplasm, the true nature of neural action, or even on the comparative claims of atoms and the void, of mathematical centres of pure force, of vortex-rings rotating in a perfect fluid, or of any other analogous hypotheses, to account for the ultimate or original structure and properties of that which the common-sense world, the scientific world, and the philosophical world, with one consent, agree to designate as Matter.

This common existent, this given reality, the *that which* all men perceive in touching, seeing, and moving, is the primary object of our examination this evening. Matter, not consciousness, is our primary

analysandum; and only in a secondary place, and as subsidiary thereto, the perceptions out of which our knowledge of it may be built up, and the modes by which those perceptions may be combined into an unified perception of it. We are here approaching the world of philosophy from the diametrically opposite direction to that of consciousness. Real matter is at one pole of that total world, and consciousness at the other. The same thing would be true of Mind, if it existed, which is now true of Matter. It would be at the opposite pole of the philosophical world to consciousness. It would be a *that which* we perceive as the Subject of consciousness, just as matter is a *that which* we perceive as an object of it. Mind and Matter are both objects of consciousness, though whether Mind, like Matter, is a *real* object, may here be left undecided. About the reality of Matter there is no sort of doubt, except such as may be thrown upon it by the assumption of the reality of Mind. For if Mind is a reality, then the perception of Matter may well be its creature, and as perception of it is the only ultimate evidence of its reality, its reality sinks back into the position of an idea. This is what is meant by *Idealism*, at least in its earlier and more intelligible form; though not, perhaps, when based upon such vapoury catch-words as *The Real is the Rational, and the Rational is the Real*.

But here I put aside the question of the reality of Mind, and take Matter, as it is taken alike by common sense and science, to be a perceived reality, the *that which* is perceived in touching, seeing, and moving simultaneously. In that sense it stands at the opposite pole to consciousness, the world of knowledge or knowability being that which is then figured as having two poles, each at the centre of its own half, or aspect, of the philosophical globe.

Not that Matter is the only object which stands at the opposite pole of the philosophical globe to consciousness. That position is shared by all the particular states, or process-contents, of consciousness itself. Consciousness is a process objectifying itself. The content of consciousness is the object of consciousness, a perceive-consciousness. the object of a perceiving-consciousness. Being conscious or, what is the same thing, having awareness, is a process in time, every preceding part or content of which becomes, or may become, object as well as content to a subsequent part or content, when that subsequent part arises. This is the fundamental fact of Reflective Perception. The Unity of Consciousness is a continuity in awareness of a content. And to recognise, as well as experience, this fact is to distinguish object-consciousness, or percept, from subject-consciousness, or perceiving, but at the same time to distinguish them as parts of the single continuity of consciousness or awareness as a whole. Every empirically discernible portion of this continuity of consciousness as

a whole is both a percept and a perceiving; it has a part which is a percept to the portion which follows it, and a part which is a perceiving to the portion which precedes it. Consciousness therefore stands at once at both poles, objective and subjective, of the figurative globe of knowledge, and therefore of philosophy.

It is this fact alone, the fundamental fact of Reflective Perception just described, which legitimates by giving meaning to the figure of a globe with opposite poles at all. The perpetual self-objectification of consciousness (not, be it observed, of the conscious agent or Subject) is the fact which we describe metaphorically by a figure transferred from space, the figure of a globe, the opposite poles of which are relative to one another, and inseparably united by the globe to which they belong. Without the globe, no poles; without consciousness, no perceiving and no percepts. When once we adopt the image of a globe with poles as a figurative mode of expressing our meaning, whether to ourselves or others, we place all percepts alike, as well as Matter, at its objective pole. In fact, it is only as a percept that Matter can be placed figuratively at the objective pole. If Matter were not a percept, we should have no evidence for its existence at all, consequently none for its existence as a reality. It is Matter as a reality which we are considering to-night, and which I am assuming that we accept in the same full sense in which it is accepted by common sense and by science. Nevertheless, in order to treat of it philosophically, it is necessary to advert, as I am now doing, to the kind of evidence which we have for its reality, that is, to its connection with consciousness as a perceiving process. It is as a percept that we know of its existence, and its reality is an inference founded upon that percept, taken together with its harmony with other percepts, which are not included in the percept of Matter.

Now just as the reality of Matter is inferred from the percept of it, that is, from its objectivity to consciousness, so the percept of Matter is, not strictly speaking inferred, but composed, or constituted, by associative processes guided by thought, out of percepts of different kinds, which are immediate, that is, immediately objectified in the process of consciousness. It is mediate in the sense of being a compound of elements which stand in immediate relation to consciousness as a perceiving. Till those immediate percepts have been put together by association and thought, and perceived in combination, we have not the percept which we afterwards call Matter. Without going minutely into the analysis of that percept, it may be stated broadly, that its elements are those percepts which we perceive immediately in seeing, touching, and moving our eyes and limbs. Their combination into a single compound percept requires association and thought; that is, representation as well as presentation of percepts is involved

in the combination. Then, but not till then, we perceive Matter, or Matter as a percept becomes an object of our consciousness. Of course, this does not imply that we recognise our percept as Matter, or contradistinguish it from its component elementary percepts as their resultant, or again from the perceiving process generally. The percept Matter is antecedent in actual order of knowledge to the recognition of its difference from all these things. What it is recognised as different from, in the perception of it, are other percepts or groups of percepts, such as those of the other senses, external or organic, which are not included as components of itself. We sever it from the rest in consciousness as a distinct object, and that is the initial step towards ascertaining any further relations concerning it. The question of its reality as distinct from its perceivedness is not raised, nor even remotely suggested. Percept and reality as yet are one.

So much it is necessary to premise concerning the perception of matter, in order to put in a clear light the reality of that percept, which is our main subject this evening. This, as already said, I propose to assume, in the same way as science and common sense assume it. But I wish to make clear *what* it is which I assume, and ask you to assume with me. Moreover, as will presently appear, some such brief account of the relation of Matter as a reality, to our perception of it as a percept, is necessary to our comprehension of another relation in which its reality stands to consciousness, besides that of its being the reality inferred from the percept. When we come to see what this second relation is, it will also be evident that a wholly different figure is required to represent it, from that of a globe with opposite poles and opposite hemispheres, objective and subjective, which I have just employed. This will shortly appear in its proper place. The only way to arrive at it is by considering Matter as a reality, a conception to which we attain by first considering it as a percept.

We see, then, from what has been already said, that Matter is a double object, has a double mode of existence, first as percept, second as reality; and that we infer the reality of *that which* we directly know only as percept. And since all that we know of it is included in the percept and in the act of inferring from this and other percepts, it seems as if the *that which* we infer, namely, the *reality* of Matter, must be for ever unknown to us. We cannot have solid bodies, or anything else, in consciousness, in any other shape than as percepts or concepts which are part and parcel of consciousness itself. This view of the unknowability of the Reality has been adopted by certain famous Germans, and formulated as the doctrine of the *Erscheinung* and the *An sich*, the phenomenon or manifestation of the

Thing-in-itself, which latter is conceived as an underlying reality, of which nothing whatever can be known, save the fact that it exists. Whatever we know or possibly can know of the reality of Matter (or of anything else) is phenomenon, and not reality.

This very neat view, which sets up an impassable barrier between knowledge and reality, since, according to it, whatever we know is phenomenon and not reality, is wholly at variance with the view taken of Matter both by common sense and by science. To speak only of the latter, it is evident that by physicists the percept-Matter is taken as itself real. It is percept and reality at once; the inferred reality is not a numerically different thing from the percept-Matter, from and concerning which it is inferred; but the percept-Matter is real as well as perceived, not the phenomenon of an underlying reality numerically different from it. To physicists, supposing they should trouble themselves about such questions at all, percept and reality would be truly figurable as opposite aspects of one and the same thing; one and the same thing would be at once phenomenon and reality.

But without troubling you farther just now with the fallacy of the great German fog-generator, the *Ding-an-sich*, which will probably meet us again later on, I content myself with saying that I adopt the view of science and common sense concerning the reality of Matter. By the reality of Matter I mean the reality, in the world of real existence, of *that which*, in the context of consciousness, has reality only as a percept. The question is, What further do we know of this reality, over and above what is included in the perception of it, that is, in the compound percept which has been already described? If we know anything of this, it is plain that real Matter must have a second analysis, different from its analysis, as a percept, into perceptions of sight, touch, and sense of effort, the combination of which by association and thought gives as result the compound percept of Matter. Two different analyses, different in kind, must correspond to the two different aspects, as percept and as reality, which Matter presents when assumed as real.

Now this is just what we find. There is a physical analysis of Matter, over and above its analysis into perceptions, and quite different from it. And I mean by analysis here analysis in its strict sense, just as in the former case; I mean an analysis into component elements, no one of which by itself is Matter, but which are Matter only in combination. An analysis into elements, any one of which was the *analysandum* over again, would not be an analysis at all; the *analysandum* would continue an *analysandum* as before.

Neither do I mean by analysis of Matter a distinction and classification of it into kinds or modes of Matter, such as ponderable,

ethereal, and living or organic matter; nor again into Matter as displaying mechanical, or chemical, or electrical, or magnetic, or vital properties, affinities, or energies.

Nor again do I mean by it a discovery of what may perhaps be called the Evolution of Matter, that is to say, a distinction between the primordial form or mode of it and later derivative forms, such as would be a derivation of other forms of Matter from vortex-rings rotating in a perfect fluid, or from Atoms swimming in a vacuum.

Investigations in these directions, which are part of the business of physical science, are not what I mean by an analysis of Matter. They still leave Matter as an *analysandum* behind them; the question, what physical or real Matter *is*, continues still unanswered. The Matter which enters into all these shapes and modes, and has these several properties and affinities, and exerts the influences, or operates in the ways, which we call the correlated forces of Nature, is not itself analysed, however many Laws of Nature may be discovered in pursuing the investigations. An analysis of Matter simply as Matter must be something different from this.

Now it is Matter as an inferred reality that we have to analyse, a reality inferred and not directly perceived. But at the same time the analysis of the reality must correspond to the analysis of the percept, and be its counterpart in thought, since otherwise it would not be the reality, or opposite aspect, of that percept, nor capable of verification by means of direct perception. The *whatness* of the reality must be in concordance with the *whatness* of the percept. Moreover, as inferred, the *whatness* of the former must be derived by thought from that of the latter, since we have nothing else than perception from which to infer it, unless we have recourse to another German fiction, namely, that of *a priori* forms of thought.

Now this inference is performed partly by means of abstraction and generalisation. Abstracting from what is particular to the several cases or instances of our perceiving Matter, we generalise the remainder common to all of them. In all cases, we perceive three-dimensional extension offering resistance to touch; whenever three-dimensional extension is *felt*, we have Matter. But three-dimensional extension, which briefly described is *space*, is divisible in thought *in infinitum*. In any part of it there are parts within parts, simultaneously existing, and limiting one another. Occupancy of space, whereby space is filled, and can be *felt*, means cohesion or these parts; those, namely, into which the space occupied may in thought be divided. But since any portion of space is divisible *in infinitum*, we have, on the part of space, no limit to the number or the parts occupied. Matter, then, or occupied space, is in thought capable of division *in infinitum* also; but we cannot therefore say,

that it is so in reality, because space and the occupancy of space are not the same thing. Indeed there is reason, as will presently appear, for holding that there is a minimum limit to the space-magnitude, which can be thought of as occupied. So that all we can say of Matter, or occupied space, is, that it is divisible *in indefinitum* (meaning by this, not that we do not know whether there is a limit to its divisibility or not, but that, although we know that there is a limit, yet where it comes in is unknown), and that, into whatever parts, above that limit, it may be divided, these parts must be conceived as coherent. Without cohesion no occupancy of space, and consequently no Matter. The occupancy of space must be subject to the nature or laws of space, but we do not know whether all space, or all parts of it, are occupied. What we do know is, that whatever parts of it are occupied, that is, wherever there is Matter, the Matter has cohesion of parts, and offers resistance to other parts of space outside it, which are similarly occupied, and similarly coherent *ad intra*.

In so thinking of Matter as a reality, what we have done is this, —we have abstracted from all the particular modes in which occupancy of space is actually perceived or felt by us, and we have laid the foundation for the further abstraction from our own actual perception or feeling in presence of it, for we have now brought Matter before ourselves as an object of pure representation. The final inference of its reality lies in the thought, that Matter, as *coherent occupancy of space*, which to us is an object of representation, and *not* of actual presentation, continues to exist, whether we are, or are not, actually perceiving or feeling it. The representation covers all cases of Matter, those which we actually perceive by sense, those which we might perceive by sense if we were in presence of them, and those which from their minuteness or fineness are actually inaccessible by our sense perception, which latter is the case of the supposed atoms and vortex-rings.

We thus change the presented relation between the percept-Matter and our perception into a represented relation between the parts of the percept-Matter, independent of our sense-perception, that is, abstracting from the circumstance of sensitiveness, or presentative consciousness, on our part, which the former relation involves, and make of the represented relation, and the parts which stand in that relation to one another, a new object of thought, not perceived in the percept-Matter with which we begin. The reality of the percept-Matter means its non-dependence on our sensitiveness, at the same time that it retains the essential properties which we perceive in it. We thus exclude sensitiveness of its parts to one another from the properties which are essential to real Matter.

What, then, in brief recapitulation is the analysis of Matter as a reality, to which we are conducted by this reasoning? What does a real occupancy of space involve? It involves cohesion of parts (in any portion of it) *ad intra*, and exclusion of parts (of other portions) *ad extra*. But cohesion between parts *ad intra* is a mode of what we call *Force*. This is Newton's *vis insita* and *vis inertiae*. And exclusion of parts belonging to other portions *ad extra* is a condition of *Force* coming into play, when any two or more portions, separate from one another, stand in certain definite space-relations to one another. This is Newton's *vis impressa*. Thus occupancy of space cannot be conceived without force, nor force without occupancy of space. Each necessarily supposes the other; neither of them alone is Matter; but being thus ever distinguishable, and never separable, they are in combination the analysis of physical Matter, or Matter as the reality of its percept.

The reason alluded to above for thinking that there is some minimum limit to the magnitude of Matter, in the direction of its divisibility, lies in the cohesion of parts which is requisite to constitute an occupancy of space. The parts into which any portion of space may be divided are each of them space, but the parts into which any portion of space-occupancy may be divided are not each of them space-occupancy, since space is only occupied by their cohesion. Space, therefore, is divisible to a further extent than Matter; that is, Matter is not divisible *in infinitum*. When we contemplate its least conceivable constituents, it seems to spring into existence, we know not how or whence. That is to say, its coming into existence is a problem, and one which we have no apparent means of solving. Its real as distinguished from its known existence is a final inexplicability.

For the analysis of real and physical Matter we thus refer to Newton, not to Aristotle. Aristotle's conception of Matter, as a potentiality which acquired reality only by the supervening of Form, is a conception to which there is nothing real, that is, no percept, to correspond. Occupancy of space apart from force is not a potentiality in the order of real existence, but an abstract conception in the order of knowledge, and a conception, moreover, which is formed only to be denied, as one not positively conceivable. Similarly with the other element of the analysis, Force. Here again we refer to Newton, not to Boscovich; at least, if it be Boscovich's conception, that pure force, acting from mathematical points along mathematical lines of direction, can either be or generate physical Matter. Pure force, like pure matter, is a conception which can be formed only to be dismissed as not positively conceivable. Force is only positively conceivable as acting either within or between parts of occupied

space, and becomes inconceivable the instant we try to conceive it acting *in vacuo*. The parts between which it acts may well be conceived as separated by a vacuum,—this is *actio in distans*; but for my part I cannot conceive an action of nothing on nothing as itself a reality.

The remarkable parallelism should here be noticed between Matter and Consciousness, both being taken in their ultimate empirical portions, or portions which are the least and simplest compatible with being empirically presented to sense or represented in thought. The same conception is true of both, namely, that both require distinguishable but inseparable elements as their constituents. This fact, which we have just seen exemplified in the case of real Matter, has its parallel in the fact, that the least empirical state, or process-content of consciousness, has two distinguishable but inseparable elements, one of sense or feeling, the other of time-duration, or (in the cases of sight and touch) of time-duration and space-extension together. Now it is this fact, common to Matter and to Consciousness, which, wherever it is met with in the subjective analysis of experience, is the foundation of Metaphysic, and together with the subjective aspect which Metaphysic selects as its field, contradistinguishes Metaphysic from all sciences which take some class or classes of empirical facts as the ultimate foundation of their reasoning. Metaphysic is the opposite, not of Physics, but of Empiric. In no other sense than this can Metaphysic be called an enquiry into supra-sensible realities, or *a priori* ideas of the Reason.

Looking back for a moment upon the conception of real Matter which we have just obtained, we see, in the first place, that the idea of an unformed Matter, as the potential or undeveloped state of the forms of Matter which are positively known to us, is a fiction of the imagination. There is no primordial *Hyle*; there is no primordial *Chaos*. Whatever may have been the form or forms, whatever the epoch or epochs, in and at which real Matter came into existence, and whatever relations of development, integration, or disintegration, may have existed between those forms, it was not out of pre-existing formless Matter that they sprang. The conception which we have obtained of real Matter, Newton's conception of it, which we may formulate as the occupancy of portions of space by cohesion within, and action on other portions (similarly occupied) without, is perfectly general, but in no wise indefinite. It is applicable to, and will be found realised in, whatever particular forms Matter assumes, or may be discovered to have assumed, at any period of its existence as Matter. Atoms and vortex-rings would alike realise it, supposing either of these two forms to have a real existence.

Secondly, if such be our general but not indefinite conception of

real Matter, what becomes of the German fiction of it as a *Ding-an-sich*, which manifests itself as a phenomenon in Matter as a percept? Inasmuch as it is now positively conceived, the reality supposed to lie concealed behind the percept, veiling itself in its own manifestation, is now brought into distinct relation to our thought, and can no longer be treated as an *An sich*, a something as it is in itself, unknowable by us. Both its nature as above defined, and the fact of its existence as a reality independent of our existence, are now known to us. It can be thought of as independent of us because, as real, it is thought of as the object of a representation, not of a presentation; which enables its existence to be separated from our own in thought, without forfeiting its reality. The proof alone of its reality, not the direct perception of it, now depends on presentation; namely, on the verification of its existence by actual sense-perception of its anticipated effects. The *Ding-an-sich* will have to seek some still remoter ambush, if it wishes to prolong its miserable biography.

II.*

The conception of Matter as a reality, the meaning and validity of which I have just brought before you, lays open an entirely new scene in respect of its relations to consciousness; to render which more plainly intelligible we shall require imagery quite different from that which I employed to depict those of its relations to consciousness which we have hitherto considered. We began by picturing consciousness and its objects as standing at opposite poles of the same globe of philosophical knowledge. The percept-Matter was depicted as a perceived Object of consciousness. Secondly, that percept-Matter was shown to be a reality independent of the existence of a perceiving consciousness, and irrespective of the fact of its being perceived by consciousness or not. It is thought on valid grounds, that is to say, it is *known*, to be an independent reality, but only in the form or shape in which it is so thought, that is to say, as what I may call *adverse and active occupancy of space*. Adverse in virtue of its *vis inertie*, active in virtue of its *vis impressa*. The particular attributes which it possesses as actually presented to the sense-perceptions of sight and touch (with their included perceptions) are abstracted from, that is, are excluded from its reality as so conceived, and are thought of only as possibilities; or in other words, as attributes which *we should* perceive in it, *if* our sensibilities

* The whole of Section II. was omitted in delivery.

were sufficiently delicate or acute, and *if* a suitable medium, or other requisite conditions, were supplied.

Still, this second view of Matter as a reality (as distinguished from the percept-Matter) does not alter its position as Object to consciousness. The reality as well as the percept can still be figured as at the opposite pole to consciousness; whether thought of as independent of us, or as a percept of ours, it is alike thought of as an Object of our consciousness. Nor is it possible to think of it at all, except by also thinking of it in this way; I mean that it is impossible to think of it in any way which does not involve, imply, or rest upon this. We may go on to further and quite different modes of thinking of it; but one and all of them must pre-suppose this, which I may call the simple Objectivity of Matter. Objective as percept, or as independent reality, it is in both cases objective; and its objectivity as reality is the source of further modes of regarding it, all of which imply and pre-suppose its simple objectivity to consciousness. This point is indisputable, and indeed is one of the most fundamental facts in philosophy.

Now the reality of Matter requires us to depict its relation to consciousness in a very different way from that of placing them at the opposite poles of a globe. We have now to bring them into close proximity. Instead of their being at opposite poles, let us now imagine that consciousness and real Matter are removed to the centre of the globe, and there stand in close contact with each other, all mere percepts, and percept-Matter among them, being removed to the surrounding surface. Of course this imagery is to be taken as a mere aid to comprehension, just as in the former case. The reason why we make the change is, that the conception of Matter as a reality brings with it the conception, that it is the reality upon which consciousness depends for its existence, or, in other words, that it is the Real Condition of consciousness. The very word *depends* expresses or includes an image drawn from spatial and physical relations. As consciousness in perceiving and thinking is the *causa cognoscendi* of Matter and its real existence, so Matter in its real existence is the *causa existendi* of consciousness. To realise in thought the former relation we depict the two *relata* as opposite aspects, to realise the latter we depict one of them as in immediate dependence on the other, Matter as condition, consciousness as conditionate.

Nothing depends on the imagery which we may use to depict this relation, but everything on the reality of the relation itself. What, then, is the evidence for this reality? We have seen that the reality of Matter includes force as an inseparable element in its adverse and active occupancy of space, and that of this force the

various so-called physical forces of Nature are modes. The whole of physical Nature, that is, the whole world of real Matter, consists of parts which are interdependent. Every portion of Matter is at once a real condition and a real conditionate of other portions. They move or rest, in strict reciprocal dependence one on another. And Matter is the only object, positively known to us, of which this can be said. In other words, Matter is not unconditioned, but, so far as our positive knowledge goes, its states, whether of rest or motion, are conditioned only on their own reciprocal inter-action. Matter includes the only real conditions which are positively known to us. Those out of, or by virtue of, which Matter itself originates are unknown.

If, therefore, consciousness is conditioned at all, or so far as it is conditioned, it must be conditioned upon Matter. And in some sense it certainly is so conditioned. Undeniable facts show, that for its *genesis*, or as an existent, it depends upon the existence of living material organisms. We have no experience of unembodied or disembodied consciousness. So far as we have experience, consciousness and the organism which is its embodiment are in immediate proximity, and the organism is the immediate real condition of the consciousness which it embodies, and of the collocations and sequences of the states or process-contents of that consciousness. It is to bring this relation before you that I make use of the proximity of consciousness and Matter, at the centre of our globe of knowledge. The genesis of consciousness takes place in a succession of present moments of experience, in dependence upon some action or other, in the nerve-system of the organism, which is going on at each of those moments. The content of those successive present moments of consciousness may be depicted as being thrown off or radiated to various points within or upon the periphery of the globe, at the centre of which they are generated, and as forming, when thrown off, a more or less systematic panorama of knowledge, in which all objects whatever find a place. The successive moments of genesis themselves are what is figured by the permanent contact between consciousness and real nerve-Matter, at the centre of the globe of knowledge.

But it is not enough merely to set forth diagrammatic figures, under which we may range the facts to be comprehended, in order to facilitate their comprehension. It is necessary to show also, that the diagrams which we set forth can be used consistently with each other, by pointing out on what occasion each in turn becomes properly applicable, as well as used consistently with the facts of experience, common to both, to which they are applied. Now the second figure, that of a globe having consciousness and real nerve-matter together

at the centre, is suggested by, and applicable to, our common-sense perception of the external world of material objects, of which a conscious being always finds himself the central object. He himself is that juxtaposition of Matter and consciousness, which we place at the centre of our diagram; or more accurately, his neuro-cerebral activities from moment to moment are the physical actions which immediately give rise to the successive present moments of consciousness, the contents of which, taken together, are his perception and knowledge both of themselves and of all other objects. Not that the stream of consciousness so generated is perceived in arising as already divided into distinct present moments, but that we learn to perceive and speak of it in this way from observation of differences in its varied but continuous content.

Consequently, when we ask *what* anything is known as, we treat it as an immediate *object* of consciousness, and then our first diagram, which has consciousness and its objects at opposite poles, becomes applicable; when we ask *how we come to have* consciousness of objects, we treat consciousness as the conditionate of some real condition, and then have recourse to our second diagram. From the point of view supplied by our first question *What*, and in applying our first diagram of consciousness and its objects, we do not travel beyond consciousness as a perception of its own states or process-contents. All its objects, including the percept-Matter, are states or process-contents of consciousness objectified. It is, as I may perhaps repeat, a self-objectifying process. And when we go on to real Matter existing independently, and as the real condition, of consciousness, and in doing so apply our second diagram, we go on to something, the nature and real existence of which have been inferred and proved solely out of data supplied by the objective contents of consciousness figured in our first diagram.

So much in justification of the two diagrams which I have used in illustration of the double relation which real Matter bears to consciousness, that is, to experience, first as its object, secondly as its real condition. Now to return to real Matter itself. I have shown above, that real Matter is adverse and active occupancy of space, irrespective of whether it is or is not an object of immediate sense-perception. Real Matter is not less real, does not lose reality, because it can be actually seen and felt, nor even because it can be actually heard, or smelt, or tasted. This consideration leads us at once to the well known, but not always equally well deduced, distinction between the primary and secondary qualities or attributes of Matter.

Supposing that we think of any portion of real Matter as perceivable substance, then those properties of it may properly be called its primary attributes, which are necessary to fulfil or satisfy the

definition of it as adverse and active occupancy of space; that is to say, those which *are* the substance as conceived, only in perceptual form. Our idea of these properties in any portion of Matter taken singly need not include more than impenetrability or hardness, figure, and mobility, all of which may be derived from perceptions of touch alone, or of touch combined with (so-called) muscular sense, or feeling of effort. These, therefore, may be set down as the primary properties or attributes of Matter, while those attributes may be classed as secondary, the ideas of which are derived from perceptions of the other senses.

The properties which are perceived as qualities or attributes by touch and its adjuncts thus coincide with the properties which are expressed in conceptual form by the definition of real Matter. It must not, however, be supposed from this coincidence, that the qualities or attributes perceived by touch and its adjuncts suffice to prove the existence of real Matter, as distinguished from percept-Matter. They contribute, indeed, along with qualities perceived by the other senses, to verify the hypothesis that Matter is an independent and active Reality; and when that reality is assumed or taken as proved, they enforce the practical belief in it with irresistible effect. But the *fact that* Matter exists independently of our perception is not deducible from these perceptions alone. There is nothing in the quality or sense-content peculiar to them to give rise to the idea of a Reality independent of perception.

It is, then, from the conception of Matter as Real Condition, the truth of which conception is shown in the manner briefly sketched in the former part of my Address, that we must start in distinguishing the primary from the secondary properties of real Matter, as actually perceived or perceivable. Its primary properties are those which constitute it a Real Condition. These properties are immediately perceived when we touch or handle a piece of real Matter. They are therefore at once both the object and the real condition of our perception of them. They are the point of union or coincidence of Knowledge and Reality.

When, for instance, my open hand comes into contact with a stone, the contact of these two pieces of real Matter conditions the occurrence of a certain sense-perception in me, which is a contributory to my full perception and knowledge of my hand, the stone, and their coming into contact. That is to say, my hand, the stone, and their coming into contact, are the objects as well as the real conditions of the sense-perception. Object and real condition of sense-perception coincide in the case of touch with its adjuncts, muscular sense, and feeling of effort. It follows, that the sense-perception of touch with its adjuncts stands in a double relation

to the real Matter concerned; it is a partial knowledge of *what* that real Matter is, as its object, and it is a conditionate of it, as the real condition of its occurrence, or *genesis* into consciousness. These two relations, though coincident in the perception, are, as we see, by no means indistinguishable from one another. Still, owing to their strict coincidence in perception, in point of time-duration and space-position, the sense-perception in which they coincide gives us some knowledge of the nature of the real conditions in terms derived from the perception, of which they, with their *relata*, are at once the real conditions and the objects.

But object and real condition begin to fall apart when we come to other sense-perceptions. When I see a stone at a distance, the patch of colour which I see, and which is the object of my sight-perception, is not the real condition of that perception arising in my consciousness. It arises there in consequence of certain undulations of an ethereal medium being reflected from the stone and transmitted so as to impinge on my retina. The perception arises in me, that is, becomes part of my consciousness, and is conditioned proximately upon some action of my neuro-cerebral system, and remotely upon some action of the ethereal medium, the stone, and other ethereal undulations beating upon the stone from the sun. All these real conditions of the perception are physical operations, belonging to the primary properties of real Matter.

Now the sense of sight alone gives no indication at all of the distance of the patch of colour from my retina. It is a percept perfectly free to be located by other considerations. When I locate it, as I do in common-sense and pre-scientific experience, in the stone, which we are now supposing to be at some distance from me, I in fact (though not knowingly) throw it out, by associative processes which are wholly unknown to me at the time, from my nerve-system, which, unknown to me, is the real *locus* of its genesis, along what we may figuratively describe as a line of radiation from myself as the centre of my globe of knowledge, and place it as an attribute in the stone, that being the only tangible object from which it seems to come, and to which it seems to belong, being found coincident with the stone, when I approach it, so as to see and touch it simultaneously. In fact, my whole knowledge of the stone originates in this simultaneous seeing and handling, the notices of both senses being combined by association in the cerebrum. At first, then, and in pure common-sense experience, I believe it to inhere, just as I see it, in the stone; that is, I believe the stone to have the attribute of colour or visibility. When optical science begins to criticise the notions of common sense, a compromise is effected by calling it a *secondary* attribute of the stone as a material substance. This really means, that the

stone is the one tangible real condition of its occurrence as a percept.

Now it is from the combination of sensations of the two senses, sight and touch, by associative processes, that we originally obtain our perception of Matter, and of the world of material objects. Visual perceptions, therefore, seem to us originally to belong to the very essence of real Matter, inasmuch as they are necessary constituents of our percept-Matter, or Matter as an object of perception. It is only when we come to see that real Matter is distinct from percept-Matter, and that the difference between them lies in the fact that real Matter means Matter as Real Condition, and thus includes only what are called its primary attributes, that is to say, those which are perceived or perceivable by touch alone,—it is only then that we dissociate colour from the attributes of real Matter, and place it among its conditionates, as a sensation which forms part not of Matter but of consciousness.

But if this reasoning holds good of visual perceptions, which necessarily enter into the very constitution of percept-Matter, *a fortiori* it holds good of all other sense-perceptions, which do not necessarily contribute to form that percept. I need not therefore repeat the foregoing argument in application to sound, odour, and taste, which are the perceptions of the remaining external senses, or to the systemic or organic sensations which arise from states internal to the organism, or to the feelings of well-being and discomfort, or of pleasure and pain, which are bound up with them. A similar reasoning applies also to those states or process-contents of consciousness, which may be distributed under the heads of emotion, volition, and thought, and which depend proximately upon neural processes in the cerebrum. These are all alike conditionates of real Matter, and all enter, in their several ways, into the objective panorama which is our knowledge of Existence generally.

The sum of my whole argument hitherto is, that real Matter, as the total of Real Conditions, is the real condition of our having consciousness at all, and therefore of our having any knowledge of existence, while the knowledge which we thus obtain, being the sum total of our knowledge, includes a knowledge of real Matter, and of its being the real condition of its genesis and existence as knowledge. There is no reason to suppose, either that consciousness has in itself any power of generating or sustaining itself, or that it is generated or sustained by an immaterial agent which could be called *Mind*, even if we could frame any positive idea of the nature of such agency, or of such an agent.

But now it is necessary to scrutinise this conclusion more closely, with a view to see what precisely it involves, and what it does not

involve. It certainly does not involve representing real Matter as the *Cause* of consciousness. The idea of *Cause* is a common-sense notion, which has still to justify its philosophical validity, notwithstanding that Kant included the relation between Cause and Effect among the *a priori* Categories of the Pure Understanding (whatever that may mean). By a *Cause* is generally intended something real, which produces something else in its totality, and thus accounts for the *nature* as well as for the *genesis* of its Effect. Such is not the relation in which real Matter is represented as standing to consciousness, when represented as its real condition. As the real condition of consciousness it accounts for its *genesis* only, that is to say, its occurrence as an event or existent, and therefore only in the form of an individual consciousness and its parts. But since it accounts for the genesis of any such individual consciousness in all its parts, and during its whole duration, in the conscious life of the individual, it follows, that its accounting for the genesis includes accounting for the order, whether simultaneous or successive, in which its parts originally occur, and also for the order in which they may be arranged by processes both of spontaneous and volitional redintegration, seeing that these depend upon physically real nerve-processes.

What, then, is it, for which Matter as real condition does not account? It does not account for the ultimate *kinds* or *qualities* of those states or process-contents of consciousness which it generates; that is, for the *nature* or *whatness* of those feelings which are, as it were, the material out of which our panorama of objective knowledge is constructed; whether these ultimate feelings include the fundamental kinds of emotion, or whether (these being derivative) they are restricted to the so-called systemic and external sense-perceptions. This latter question is one which does not concern us here. The *nature* of sentience, awareness, or consciousness, including the *nature* of its ultimate kinds or qualities, whatever these may be, is not accounted for by attributing its genesis or theirs to the physical operations of Matter. There is nothing in those operations to explain, for instance, why there should be such a *kind* of feeling as the perception of *blue* or of *red*, but only why they should arise, or come into consciousness, *here* and *now*, supposing their kind, quality, or *whatness*, to be otherwise known. Matter can account for *which* of any given ultimate sensations shall arise in consciousness at a given time, but not for *what* any of them are in immediate perception.

If again we approach the relation of consciousness and its real condition from the side of consciousness, we find facts which completely harmonise with and corroborate these statements. Our whole knowledge of real Matter, knowledge both of its nature and of its existence as real condition, consists of certain ultimate

sense-perceptions, which are (so to speak) the material out of which our conception of it as an operative reality is constructed. Without those sense perceptions we should have no knowledge of it at all. They are among its essential conditions *cognoscendi*. Thus to answer the question, *What* real Matter is, we must have recourse to consciousness, and therein to certain modes of it, which in point of *nature* are not conditioned upon Matter. They are among the *ne plus ultra* constituents of knowledge, as real Matter is the *ne plus ultra* in positively known real conditions. Beyond the *fact* of its existence in this direction we cannot go. We cannot assign its *genesis*, because we can form no positive idea of any real conditions which are not physical.

The conclusion, then, at which we thus arrive is as follows. Real Matter accounts for the *genesis* of any individual consciousness, but not for its ultimate *nature* as consciousness. And consciousness in an individual accounts for the *nature* of real Matter, but not for its *genesis* as real Matter, that is, as real condition, since at that point all data for further knowledge fail us. Now all questions, whether as to nature, or reality, or genesis, must be answered in the terms in which they are put, that is, in terms of consciousness. Questions and answers alike are phenomena of consciousness. And we have just seen, that Matter does not condition the *nature* of consciousness. A great difference is thus disclosed between real Matter and consciousness, in respect of their being a *ne plus ultra* of enquiry. The difference is this. We can fairly and fully put the question with regard to the *nature* of real Matter, whether it is or is not conditioned upon some real condition which is positively unknown to us; but with regard to the *nature* of consciousness we cannot succeed in putting the same question, since all questioning is of the *nature* of consciousness, and assumes what is equally self-evident, namely, that the answer, if any, will be so too. The *nature* of consciousness, therefore, is not only an ultimate datum of all knowledge, but its character as ultimate is strictly and literally unquestionable. The *nature* of consciousness, like the *nature* of everything else, that is, of all its objects, real Matter included, must be given in terms of consciousness. This brings us back to the position from which we started, at the beginning of my Address, and which was illustrated by our first diagram of a globe with opposite poles.

III.

The question concerning the possibility or probability of real Matter having had its genesis from some real conditions different from itself, though all such conditions must be positively unknown

to us, the sense-data of our knowledge being what they are, involves, or rather presents by a different handle, the problems of the infinity and eternity of Matter. A word or two must be said in conclusion, and with all possible brevity, upon these problems.

Our idea of eternity, I take it, is derived from, and has reference to, our perception of time-duration, and that of infinity is derived from, and has reference to, our perception of three-dimensional space; though some confusion is caused by our having to use the term *infinity* in speaking of time and eternity, particularly in respect of what is called the infinite divisibility of time, which is really the inverse of its eternity, its eternity *κατ' ἀφαιρέσιν*. Infinity is thus a term which applies both to time and to space, and in each respect has two modes, one in the direction of decrease by divisibility, the other in that of increase by extensibility. In fact, most of the terms by which we picture anything to thought are derived from our spatial panorama of knowledge. We think of time itself under the figure of a line.

Now some reason was shown, in the former part of my Address, for holding that real Matter, or adverse and active space-occupancy, is not divisible so far as space itself, and therefore is not divisible *in infinitum*, but has a minimum of extension, in less than which extension it does not exist as Matter, an extension, therefore, which is necessary to its existence as real space-occupancy. Thus Matter is finite in the direction of divisibility with respect to space. This of course does not imply its corresponding finiteness in divisibility with respect to time-duration. Its occupancy of its minimum of space may come to pass instantaneously, and the occupation of every part of that minimum be simultaneous. If this be so, the duration of real Matter must be conceived as equally divisible with time-duration itself; that is to say, in point of its time-duration Matter is divisible *in infinitum*; go on dividing its duration as long as you may, you will never come to a duration so short as to be indivisible into parts still shorter. The genesis of the minimum of space-occupancy being instantaneous means, that there is no time-duration which that genesis must necessarily occupy. The divisibility of Matter in respect of time-duration, and its divisibility in respect of space-occupancy, do not stand on the same footing; its divisibility may be infinite in the former respect, while finite in the latter. And, so far as I am aware, there is nothing to show that it is not infinitely divisible in the former respect, like time itself, in which it exists.

But the fact that we discern a duality of parts in that space-occupancy which we call Matter, from which we are led to infer that it requires a finite minimum, or finite minima, in order to exist at all, leads us also to infer that it has some real conditions, which

would be seen to account, if we only knew them, for the putting together of those parts, so as to form the finite minimum or minima, which adversely and actively occupy space. In other words, we infer that there was a time, when no minima of real Matter existed, but only real conditions of it, conditions of which we have no positive knowledge; and this holds good, whether we think of those unknown real conditions as existing in time alone, or in time and space together.

These considerations carry us over from the question of the infinite divisibility of Matter, in respect of time and space, to that of its infinite extensibility in both respects, its infinity *κατὰ πρόσθεσιν*, that is to say, its infinity proper in respect of space, and its eternity in respect of time.

To begin with the latter. If, as we have seen reason to infer, there are real (though positively unknown) conditions of the genesis of real Matter, it is clear that it has a beginning or beginnings in time, and therefore falls short of eternity, the infinity *κατὰ πρόσθεσιν* of time, a *parte ante*, or looking backwards from any given moment of its existence to the epoch or epochs of its genesis. Time and space being infinite, and also entering as elements into the constitution of real Matter, we are compelled to conceive time, and it is most reasonable to conceive space also, as existing prior to the genesis of real Matter, and as occupied, prior to that event, only by real conditions of its genesis, positively unknown to us, and possibly by real conditions of these again, and so on, possibly *in infinitum*. The finiteness of Matter in respect of its origination at some epoch or epochs in a pre-existing eternity may thus be held to be fully established, and also, though with less certainty, its origination at some place or places of pre-existing and infinite space. The alternative to this latter view is, to regard infinite space itself as coming into existence simultaneously with Matter, at some single epoch of infinite time.

But this reasoning does not establish the finiteness of Matter *κατὰ πρόσθεσιν*, either in time or in space, a *parte post*, that is, looking onwards into the future from any given moment of its existence, or from the epoch or epochs of its genesis in time, whether that genesis is conceived as instantaneous, or as requiring some minimum of time-duration for its accomplishment. Taking first the question of its infinity or finiteness in space, in the sense assigned, it may, I think, be truly said, that the mere fact of a minimum of space being requisite for its genesis does not of itself involve the idea of that minimum, or the Matter which occupies it, being figured, that is, limited by an outline, and therefore finite; it is not thereby alone considered as a material atom; nothing whatever

is thereby implied as to its limitation *κατὰ πρόσθεσιν*. It may conceivably have sprung into existence throughout infinite space instantaneously.

But when we ask whether there are any other considerations which forbid us to conceive Matter as occupying infinite space, whether at present or in the future, I think we shall find that there are. In the first place, it is impossible to conceive Matter as a real existent, and at the same time infinite in expansion, since to conceive anything spatial as a real existent is to conceive it individualised by having some outline or figure, and therefore as limited. When we conceive it coming into existence as a reality, we must conceive it coming in some particular or individual form; otherwise it is not conceived as a concrete or empirical object, besides not having the characteristic of being a real condition, capable of acting and being acted on. It would not then correspond to its definition, as adverse and active space-occupancy. We should thus reduce it to an unformed *hyle*, a capacity for receiving form, and therefore a mere potentiality, which would be deserting Newton's conception of it, and falling back on Aristotle's, which we have seen reason above for abandoning.

In the second place, the conception of a limited outline to the whole world of Matter seems to be demanded by the established doctrine of physical science, that the quantity of Matter in the material world is a constant quantity, like the total amount of energy which it displays in its two alternating forms of potential and kinetic energy, the gain of one being a loss of the other, and *vice versâ*. It might perhaps be possible to reconcile these laws with the infinity of Matter in space, by restricting them to certain kinds of Matter only, excluding the ether, for instance, from the range of their proved and verified validity. But even could this be done, it would afford no positive ground for affirming the infinity of Matter in its widest range, and the reason first alleged in favour of its finiteness would continue valid. I accordingly conclude that Matter, besides having a beginning in time, and a minimum limit of extension in space, has also a maximum limit of extension in space; that is to say, is to be positively conceived as finite, though in respect of where its limits fall, or how they are fixed, its extension is indefinite, in the second sense of the term above noted.

Turning now to the question of the infinity of Matter in the direction of increase in future time, the case seems to me to be different. I am not aware of any reason which compels us to conceive its duration limited, so as to fall short of infinite time. The conceptions of its beginning and its ending seem to me to stand on different footings. That of its beginning rests on the fact, real or

supposed, of a limit to its divisibility in space ; but that of its ending seems unconnected with the real or supposed fact of its having a limit to its extensibility in space. Its being finite in space does not imply its being correspondingly finite in time.

It is true that the unknown real conditions, to which, as we must conceive, it owes its origination, or others equally unknown acting in conjunction with them, may operate so as to fix limits to its existence in time. But this fact is necessarily unknown to us, seeing that the real conditions on which it depends are unknown. The affirmative and the negative are equally possible, so far as our means of knowledge go. There are, as it seems to me, no speculative grounds which either compel us, or forbid us, to conceive the world of real Matter as infinite in duration, in the particular sense of the term which we are now considering, that is, as destined to exist, in some material shape or other, throughout a future eternity. The one thing which I think we may hold with certainty on speculative grounds is, that the world of real Matter is dependent upon some continually operative and eternal real condition or conditions, different from itself, which in their nature and mode of operation are positively unknown to us. Our speculative knowledge of real Matter thus leaves us at once with valid grounds for the conviction that there is some Reality which stands to Matter in the relation of real condition, and with grounds equally valid for the conviction that, with our present faculties, no positive knowledge of that Reality is attainable.

Here, then, I think it will be said,—here I think I see old Jack-in-the-Box, our long-lost *Ding-an-sich*, jump up with the cry, “That’s me ! I am those positively unknown real conditions ; they are the Reality, of which real Matter is the Manifestation (*Erscheinung* is my very own word), in themselves unmanifested ; and you may suppose, if you like, your knowledge of those now unknown real conditions increased to any extent short of Omniscience, and still you will have real conditions, in themselves unmanifested, which escape your knowledge ; these will *always* be an unmanifested reality.”

This contention of Jack’s sounds plausible, but nevertheless there is a palpable fallacy in it, a false substitution of one thing for another. A thing, conceived as the unknown real condition of another thing which is known, is not identical with a thing conceived as out of relation to knowledge, that is, a thing *in itself*, or *an sich*. In fact they are contradictories. The former is conceived as possibly knowable, the latter as not possibly knowable. Now there is just one thing nameable which beyond all question is not possibly knowable, and that is the truth of a contradiction. One of its contradictories must be true and the other false. Which, then, of the present pair of

contradictories is true, and which false, the assertion of something positively unknown, or the assertion of a thing unknowable or *in itself*? Plainly the latter is false. And why? Because the thing which it asserts is a self-contradiction, a contradiction in terms. Knowledge is *always* knowledge of a content of knowledge. No content of knowledge can be out of relation to knowledge, or *in itself*. If the *An sich* is unknowable, it is so in no other sense than that the conception of it is a self-contradiction, and therefore its existence a fiction. I think Jack may be requested to step out of his Box, and make himself scarce.

But you may still ask me, How does this astonishing substitution arise, how comes the *An sich* to impose itself on thought as a genuine conception? The answer is easy, and yet perhaps not uninstructional. The difference between appearance and reality is a genuine part of common-sense experience. In that character it is a true and valuable contrast. It is valuable also when used by way of illustration, as an aid or stimulus to thought, as Plato, for instance, used it in the well-known similitude of the shadows seen by prisoners in a cavern, in the *Republic*. But it is totally unfit to be used as an ultimate and valid philosophical conception, without being first sifted by analysis, that is, without analysis of what the term *Reality* means, and in what respects it can be distinguished from *Appearance*. Common sense never raises this question, but is content with the familiarity and practical usefulness of the distinction. It is a parallel case to that of *Cause*, noticed above. To adopt the common-sense distinction unanalysed as a philosophical one is virtually to assume *reality* to mean that which is *not* an appearance to us. In this assumption we have a source of confusion, ending probably in Agnosticism or in Scepticism. Analysis on the contrary shows that *Reality* means, either that which immediately appears, or that which may with certainty be inferred from immediate appearances. Reality and Appearance, instead of having a separate existence, as the *An sich* doctrine assumes, are inseparable, though distinguishable, aspects of each other. Common sense is blind to distinctions of this sort, because common sense is not philosophy and does not need them. Not the common-sense notion, but elevating it as it stands into a philosophical axiom, is thus the source of the blunder, and the reason for its condemnation.

SYMPOSIUM—ORIGIN OF THE PERCEPTION OF AN EXTERNAL WORLD.

I.—By SHADWORTH H. HODGSON, *President*.

FIRST, as to the precise meaning of the question proposed for discussion. Its interest seems to me to be primarily philosophical, inasmuch as it bears upon the foundation of the doctrine of Idealism. I mean, that the point which it raises is one which Idealism must logically decide in the affirmative, namely: Is or is not a perception of self, as different, though not perhaps separable, from its own so-called inner perceptions or states of consciousness, a necessary antecedent of so-called external perceptions, which, as perceived or thought to arise from the not-self, become the foundation of our knowledge of an external reality? Or in other words, Must the perception of a difference between self and its perceptions generally be taken as a pre-requisite to distinguishing between perceptions which constitute our full knowledge of self, and those which constitute our full knowledge of an external world?

If any light is to be thrown on this point by a examination of the question proposed this evening, it is plain that we must not begin by assuming either an affirmative or a negative decision of the point. We must treat the point as undecided, and therefore must abstract from the consideration of the part played by a prior knowledge of self, in originating the perception of an external world. I therefore take the question proposed to mean: What are the sufficient and necessary constituents, the combination of which is the perception in question; *not*, at what epoch, or under what conditions, in the psychological development of an individual conscious being, their combination takes place, and the perception of an external world arises? The latter question does not exclude the assumption of some self-knowledge on the part of the percipient, prior to his perception of an external world; and to make this assumption, in the case of any particular class of perceptions, is to remove the enquiry from the domain of pure analysis to that of psychology, by making its answer depend on what we may think we have reason to know, from other sources, of the nature and powers of the percipient, and thus putting our own theories in the place of his perceptions.

Now the question as it stands may have four distinct meanings; it may mean to demand either:

1. Analysis of the perception of an external world, *i.e.*, combination of its sufficient and necessary constituents (as just explained).

2. Epoch and conditions of its arising as an event or existent in a percipient's development (as just explained).
3. Analysis of the perception *that* an external world exists as the real object of the perception of it.
4. Epoch and conditions of this latter perception of reality (No. 3) arising as an event or existent in a percipient's development.

Of these, No. 2 and No. 3 plainly pre-suppose No. 1, and No. 4 also pre-supposes No. 2. So that the primary question of all is No. 1, some answer to which is necessarily pre-supposed in putting any of the other three. We must therefore begin with this question, No. 1, in its distinctness from the rest; that is, must abstract from them and the ideas which they involve, in answering it; must make no use of our own present knowledge, if any, of the nature and powers of *percipients*, even by way of hypothesis.

It may turn out, and I think it will, that the answer, that is, the analysis of the perception when arrived at, will include the perception of a percipient as object, along with that of its own named object, an external world; and that question No. 3, which depends on No. 1, will therefore include the *reality* of the percipient, as well as the *reality* of a world external to him. In that case the *necessity* of the Idealistic doctrine, of a perception of self as different from its perceptions generally, would be precluded, and even the existence of it as an original perception be rendered doubtful, since a sufficient source for it would have been shown to exist in a different experience.

If these remarks are sound, it would be highly illogical to make use of any hypothesis concerning the nature and powers of the percipient, in analysing the perception of an external world, as defined in question No. 1. When we shall have pointed out the component elements, the combination of which constitutes the perception in question, the analysis thus given will hold good, whatever be the epoch at which it is effected, and whatever be the powers concerned in effecting the combination. The elements in combination will be the answer to the question, the analysis of the perception; the powers employed in effecting this combination, and the epoch at which it is effected, compared to other perceptions, will then fall back and take their place as part of question No. 2. These points concern the perception as an event, or existent state of consciousness; they are psychological conditions of its genesis as such. The analysis of the perception remains the same, whatever the nature of these conditions may be.

It is the natural pre-supposition of common sense, which may perhaps be called even a conviction, that there are real percipients and a

real external world, and that the percipients play a part, in procuring their own perception of it, as essential as that played by the external world perceived. It is the business of Psychology to formulate hypotheses concerning the nature and powers of percipient beings; and in doing so, psychology is logically bound to have recourse to analyses such as that of question No 1. It follows, therefore, that no conviction of common sense, nor any psychological hypothesis, ought to be included in, or assumed hypothetically as prior to, an analysis similar in kind to the one before us.

But now to come to the analysis. The perception to be analysed is designated in common-sense terms as that of an External World, by which I understand some positively perceived content which is external to something; and the first question is—external to what? If we say, external to the percipient, this involves an assumption, forbidden by the preceding considerations, of the nature of the percipient, an assumption of it as already known to be the *inner* of an *outer*, called external. This lazy and misty assumption should be left to fog-making Germans, who are very fond of it, and usually mark their sense of its value for that purpose, by space-printing the words *Das Innere*, *Das Aeussere*, and the like. The terms *inner* and *outer*, as distinct from the facts which they may be transferred to characterise, derive their whole meaning from spatial extension. To apply one of them, *Das Innere*, without proof, to the Self, is to turn it from a metaphorical adjective into a substantive, which is a fallacy. The applicability of the two terms to the self and the not-self, as distinct sources of perception, is a thing which requires showing, and cannot be taken as known *a priori*. Till that has been shown, *Das Innere* and *Das Aeussere* may pair off with *Das Unbewusste* as fog-generators. The sum and substance of Kant's *Critic of Pure Reason* consists in first falling headlong into the fallacy just signalised, and then showing at great length the unknowability of the entities which he has thereby fallaciously assumed.

If again we say, external to the perception, this not only at once trenches on question No. 3, which concerns the reality of the perceived object, but also involves the assumption, that a perceived object is known already, or known *a priori*, as external to the perception of it. That is to say, we make the question assume as known part of the very thing which it professes to enquire into.

It follows that the only course open to us is to make the question, *external to what?* part of the question to be answered by the analysis; that is to say, we have to analyse the perception of externality itself, in its origin, or ultimate and most simple form. We have not merely to show how we perceive a world external to this or that particular

thing, but how we perceive the relation of externality between any two or more things whatever.

Now there are only two kinds of perceptions which are, severally, at once sufficient and indispensable to give us the perception of externality; that is, which include in themselves the perception of parts beyond parts, simultaneously existing, and limiting one another. These are the perceptions of the two senses, sight and touch, taking the latter to include the muscular sense (as it is called) of resistance and effort. I call the content or immediate object of these senses *perceptions*, to indicate the presence in them of some formal element or elements, to which their externality belongs, along with the purely sensation-quality, light and colour in the one case, hardness, resistance, and effort in the other;—these two kinds of elements, that of form and that of sense, being inseparable from each other, and only together forming a complete or empirical item in the context of consciousness. Light and colour are always seen extended; hardness and resistance are always felt extended. We can neither see nor feel a mathematical point. And even the feeling of effort, taken alone, that is, not as involved in resistance, contains no indication of externality.

Several writers hold, that other senses besides the two named involve a perception of externality, of direction in space, and even of volume, which includes depth as well as breadth; among which they instance particularly organic sensations, and sensations of sound, many of which, they say, have a certain massiveness or voluminousness, in strong contrast to others which are thin and piercing. Sensations of sound also contain, it is said, clear indications of the direction from which the sound comes, and in this way include a rudimentary perception of externality. All this and much more, in far greater detail than can now be stated, is true. But then the perceptions of externality which are so given are partly, if not wholly, due to what are essentially touch and (so called) muscular sensations, closely combined with the specific quality of feeling by which the sensations or perceptions, as wholes, are named; and partly the rudimentary externality so perceived is not the perception of externality as defined above, and consequently is not alone either a sufficient or an indispensable constituent of an external world. It is true that, when once we have acquired the perception of an external world, we then see the meaning of massiveness, voluminousness, and direction of approach, involved in the sensations in question, and read back externality (in the sense defined) into them, from that previously acquired perception; to the full and complete knowledge of which they then become important accessories. But a perception of externality, in the sense of parts beyond parts, simultaneously

existing, and limiting one another, is not given by these sensations alone.

The simultaneous and combined exercise of two senses, each of which severally gives a perception of externality, seems to be requisite for the perception of an external world. No single sense alone gives the latter perception. Sight alone gives nothing more than superficial extension and seen motion therein. Touch alone gives nothing more than solid extension of separate bodies, neither connected with nor limited by other bodies simultaneously existing, unless these are touched simultaneously. A being endowed with touch alone would never perceive a space occupied by solid bodies which are outside his own, and have a continuous existence during the intervals of his coming into contact with them. And although he might well distinguish feelings of contact on the one hand from feelings, of effort for instance, arising in the movement of his own limbs, and from feelings of comfort or discomfort arising in parts of his own body, on the other, and thus form two contrasted groups of feelings which, to our present, or his own later apprehension, might be called external and internal with reference to the organism, still it cannot be held probable, or even possible, that he could conceive the feelings of the two last-named kinds, namely, feelings of effort and of comfort or discomfort, as together composing a self, to which the feelings of the former group, namely, those coming under the head of contact, were external.

The case of those who are born blind may perhaps be thought to militate against the conclusion, that two senses, each of which gives a perception of externality, are necessary to the perception of an external world. As those who are blind from their birth undoubtedly acquire, or may acquire, some form of the latter perception, the externality which is given by sight seems in their case to be no indispensable ingredient of it. But here we must remember, not only that touch is here combined with all the other senses, with the single exception of sight, and that it frequently acquires an abnormal degree of sensitiveness, but also that the perception of an external world, which those born blind may attain to, is formed under the instruction and guidance of those who can see, and who can convey mediately by descriptions, making use of analogy, an idea of that which only direct vision can immediately reveal. It would, in fact, be truer in such cases to speak of the conception, than of the perception, of an external world, inasmuch as thought plays by far the preponderating part in the knowledge which they have of it.

It is by reference to normal cases, that is, the case of persons endowed with the normal complement of senses, that the expression, *perception of an external world*, must be understood. In these cases

there is little doubt, that the combination of sight and touch is the actual mode in which that perception is attained. All strictly immediate sensations, or perceptions, to their full normal amount, are included in the *data* of the enquiry. All alike are at our disposal in accounting for the attainment of the perception in question. It is in fact a product of association, attention, and comparison, working on and with the perceptions of the two senses of sight and touch, as their material. Not that the perceptions of other senses are not being received and combined with them, and with one another, contemporaneously, but that these two senses alone among the rest supply the normally necessary ingredients, out of which that perception is built up.

We may conclude, then, that, externality being distinctly involved in sight and touch sensations only, it is in them only that we have the necessary and sufficient rudiments of the perception of an external world. When these two senses are exercised together, the perceptions of each combine with those of the other into the perception of a single world composed of grouped perceptions belonging to both kinds. When we simultaneously touch and see parts of our own bodies, the hands for instance, we have a group of perceptions, variable within certain limits, but forming on the whole a more or less constant centre of a vast space more or less approximating to the spherical, of unlimited or indefinitely limited radius, containing other groups of variable perceptions of the same two kinds, which we come to know afterwards as the material objects, first of common sense, and then, more accurately, of physical science. Such is the perception of an external world,—a world, in every act of perceiving which our own bodies are perceived as the never-absent central object. And it has never yet been shown, that we have originally any perception of self as a reality, and still less as a percipient, except as the central part or central object of that world. The combination of sight and touch perceptions is the perception at once of an external world and of the Subject as part of it, namely, as the central and permanent object, to which other objects are external, besides being external to one another.

The question, How or When the combination of sight and touch perceptions is effected, is psychological, or as it is now the fashion to call it, psychogenetical. It comes under our question No. 2. But it is clear that, whatever hypothesis we may adopt for its explanation, that hypothesis must either pre-suppose some analysis, analogous to the present, of the perception of an external world, or else must be built upon some *a priori* conception of the nature and powers of an immaterial agent, not warranted by experience. I mean of course that this holds good, until proof has been given, by pure analysis of perception, that a perception of self as a real percipient is derivable

from experience exclusive of visual and tactical perceptions. Similarly the answer to question No. 4 depends upon that which may be given to question No. 2. With neither of these questions am I now concerned.

Again, the reality of an external world, corresponding to our perception of the same name, is our question No. 3, which, I take it, does not fall within the scope of our enquiry this evening. Its answer depends plainly upon the pre-supposition of an answer being given to question No. 1, which is that now dealt with. Upon this question, which alone can be dealt with by analysis on grounds of immediate experience, without assumptions other than that of the *data* to be analysed, all the others, with their consequences, are dependent. And to make evident this truth is perhaps the most important result to be reached by discussing the question proposed to us this evening.

II.—By B. BOSANQUET, *Vice-President*.

THE President's analysis of the perception of an external world would have borne a good deal of expansion; but it is curtailed in favour of a negative contention, which we shall not be wrong in treating as the point of chief interest to the writer. This contention is stated in two forms; one, as I understand it, just, while the other is inconsistent with the writer's own analysis. Moreover, the familiar thesis which underlies this contention, has not, as it appears to me, the importance which the writer persistently ascribes to it. Its corollary, of the falsehood of Idealism, apparently borrowed from Kant's "Refutation of Idealism" in the *Critique of Pure Reason*, ceases to be just when asserted without the limitations which Kant there assigns to it.

I understand the underlying thesis to be that the mind is not an immaterial agent—not a thing or entity. It is this which gives point to the negative contention, (1) that no antecedent perception of the self is among the conditions of the perception of an external world, and (2) that "no present knowledge" or hypothesis "as to the nature and powers of percipients" must be used in the scientific analysis of this perception.

In its first form, (1) this negative contention attacks the fallacy pointed out by Kant which consists in supposing that a *perception* of self as an *object* is prior to and a condition of the perception of objects outside one another in space. This criticism is applied by Kant to the Idealism of Descartes and Berkeley, the Idealism which regards external reality as in some way secondary to the perception

of self. Kant maintains that the perception of self can only be generated by and through the perception of objects in space. And this view seems at least nearer the truth.

The fallacy of treating external perception as secondary to the perception of self is probably, as Kant seems to suggest, dependent on the fallacy of regarding the external world as outside the mind, as though the mind were in the body as a box within a box. To write the history of this fallacy would require greater knowledge than I possess. It certainly determined Locke's views: and through him and his successors it affected the terminology of Kant in the doctrine of inner and outer sense. But the point that objects in space are not to be called outside the mind, but outside one another, is perfectly plain in Kant. This special point is tersely explained by Professor Green, and also by Professor Caird, and is now a mere matter of history.

The second form (2) of the contention seems to rest on a confusion with the first. To say that in scientific analysis of perception, we are not to use our knowledge of the nature and power of percipients, simply has the result that a few psychological conceptions, which are supposed to belong to the data of the problem, are employed without connection or completeness. Yet these few are enough to break down the principle. How can we assume the extensivity of sight and touch, and such unconsidered trifles as association, attention and comparison, and yet say that we are "making no use of our own present knowledge of the nature and powers of percipients"? Without these data, brought to meet us by the verifying observations of a special science, we have no *vera causa*, and our analysis of common experience hangs in mid-air.

Is it not owing to this dread of being detected in using his really considerable knowledge of psychology, which is a wholly different thing from assuming a presentation of self prior to space-perception—that Mr. Hodgson stops short after he has said something of the idea "external," and tells us nothing of what is implied in "world"? "External," as he says, in agreement with Kant* and Hegel and Green, means having parts simultaneously outside one another.† What does "world" mean? I fear that this takes us into question 3. A world involves the representation, not the knowledge, of existence external to perception. Let us try it in Mr. Hodgson's account of our bodies. Our body is always perceived as the central object of the

* On 4th paralogism of Psychology.

† Unless "outside" means "outside in space," it is hard to define so as to exclude the parts of a numerical whole, or simultaneous feelings. I despair of distinguishing space by a definition without tautology.

perceived external world. This idea of a centre plainly includes in the perceived external world objects on which sight and touch are not at the moment resting. If it is said that world in this sense is a concept and not a percept, then I think we must quarrel with our title, the perception of the external world. World means a system whose parts are in some kind of connection, and therefore do not go out of existence for no relevant reason. Space-perception, if restricted to the momentary area of touch and sight, would not be the perception of a world. It would be wholly disconnected.

Some contribution to the question, how we get the world outside perception indissolubly bound up with the fragmentary moments of sense-presentation, is made by Mr. Hodgson in alluding to the complementary action of sight and touch. Sight gives us things existing out of touch, and touch, things out of sight. It is only an analogical step to think of things as existing both out of sight and out of touch, more especially as sight at least admits of endless gradations of clearness, so that we can easily see why the last barely appreciable change from visibility to invisibility should not suggest what no former variation suggested.

But some more definite occasion for the widening of perception into a world seems to be needed, and can hardly be found without the principle of negation, which is indispensable in all systematic connection.

Mr. Stout's article, in *Mind*, 57, on the Genesis of the Cognition of Physical Reality, shows how this element would introduce itself through the conflict of presentations, demanding some ideal steps to be interposed in order to smooth a transition which would otherwise seem to mark a *saltus* in experience. If things always did what we expected, we should not admit their independence. It is the partial disturbance of the mental course that provokes the suggestions, which convert sense-perceptions possessing extensity into an external world.

I can see no considerations in this argument, be it right or wrong, which fall outside the kind of nature and powers that Mr. Hodgson has ascribed to the percipient. It appears to me, indeed, that Mr. Stout does too much assume the priority of our definite perception of our own bodies. But however this may be, it is not, in Mr. Hodgson's sense, an antecedent perception of the self.

III.—By DAVID G. RITCHIE.

The question seems to me *primarily* a psychological one, as it concerns the *origin*, and not the philosophical implications of our perception of an external world; *i.e.*, I should identify it with Nos. 2 or 4 in the President's list (*see* page 27). And, on the whole, I think it must be identified with No. 4; for we can hardly have a perception of the external as external, without the implicit judgment that the external exists.

The question is psychological, but it cannot be discussed without raising philosophical questions, and it has, in fact, been one of the favourite avenues into metaphysics. We must answer the question, "What do you mean by external?"—as the President puts it "External to *what*?" A hundred years ago it was a favourite practice to appeal from the philosophers to the vulgar. One doesn't like to say "the vulgar" now; but one may well ask "what the plain man means?" Now by the external world the plain man certainly means the world outside his own body. His internal world means, most probably, his digestive apparatus. If he thinks of the soul, he figures it to himself as some *thing* inside his body ("a box within a box," as Mr. Bosanquet puts it, page 33). The most widespread idea, I fancy, identifies the consciousness of respiration with the activity of the soul, so that the soul is primarily located in the breast, and is only transferred to the head when a certain amount of physiology has become popularised.

The "metaphysical man" may say that the soul is an immaterial substance, one and indivisible, &c., &c., but he will probably continue to practise the picture-thinking of the plain man. Only so is it possible to understand how any one can have imagined that we can know a world external to our own minds, *i.e.*, know the unknown.

"External to our minds" might indeed be allowed as a way of expressing our discovery that a large part, by far the larger part, of our conscious experience goes on independently of our wills and in spite of our wishes. But this independence of our wills is also true of a great part of what we call our "inner" experience. Still, whatever other elements enter into the history of our coming to perceive that there is an external world, resistance to effort is, I should think, generally admitted to be the most important of them.

I cannot see how we can talk of an "external" at all, except in relation to an "internal"; but neither can we talk of an "internal" except in relation to an "external." I think the most hardened "idealist," if he is really a Post-Kantian, would agree with the

President, that there is no perception of an "inner" or of a "self" antecedent to a perception of an "outer" or a not-self.

Originally—at the dawn of consciousness—there can be no distinction of self and not-self, still less any distinction of "mental" and "physical." The fact that different parts of the body can touch one another and that the sense of touch must always be exercised at several points simultaneously, must be among the main elements in the distinction of one's body (which is what most people mean by "one's self") from the rest of the universe. When a baby strikes its hands together there is a more complex feeling than when it strikes its hands against something else; and here is a basis for the recognition of the self as distinct from the not-self. At first the distinction is vague enough. I imagine that when a kitten runs after its own tail, it has not yet distinguished itself from its environment: nor perhaps has a baby when it first grasps its own toes.

The recognition of the mental as distinct from the bodily comes much later: and I doubt if any one, uninfluenced by philosophy or by some theology which has absorbed philosophy, considers his own body as properly belonging to the external world.* The mental or inner world is distinguished from the physical or external world under the influence of dualist metaphysics, the mental world being thought of by the help of physical analogies. It requires a great effort to get over this stage, and to realise that the distinction of self and not self falls within the mental world; *i.e.*, within the totality of our conscious experience.

In the sense in which our own bodies can be said to belong to the external world, externality might seem to mean simply the "outside-one-another-ness" of things, *i.e.*, extension or space. But externality means more than extension. A large part of what we call the "inner" or merely mental has also to be thought of *as if* in space. Even general ideas, unless we are using them for the time being purely like algebraic symbols, will call up some image, however dim and fluctuating, which image must be an image of something extended, quite as much as is the percept of a real object. Does "external," then, mean *really* existing in space, as distinct both from that which is thought of without reference to space at all, and from that which is imagined as if in space? The question about the perception of the external world would then be identical with the question, how we come to believe in the reality of space, which is part of the general question about our belief in reality. What then

* Contrast, *e.g.*, Homer's "*They were a prey to dogs and birds, but their ghosts went to Hades,*" with what Plato makes Socrates say in *Phaedo* 115 c. How the ghost becomes the soul would require a long historical enquiry.

does the plain man mean by "reality"? He means, most usually, that which is not simply experienced by himself at the moment, but that which may be valid for him at other times; moreover, and this is the more important test of reality—he means that which is valid for other people as well as himself. If I ask "whether anyone heard a sound just now?" and the rest of the company answer "No," then, unless I have a very high opinion of the superiority of my own powers of hearing, I must admit that I have imagined it—it was not real. The reality of space means the possibility of others understanding and accepting what we experience with regard to it. There can be a science of the relations of space, because we find that we all have to think in the same way about them. And there cannot be a science of feelings or sensations, except in so far as we can translate them into terms of space, which have a common meaning for all persons, (*e.g.*, regard sounds as vibrations).

As often happens, there seems so much difficulty in settling what our question means, that there is hardly time left to attempt an answer to it. But I shall try to give one very briefly, using, so far as I can, the results already arrived at by Mr. Hodgson and Mr. Bosanquet.

Perception, as distinct from mere sensation, involves some interpretation of our sensations; and I think sense-perception* always involves some reference, however tentative and vague, to position in space; for we do not *perceive* even sounds or odours (as distinct from merely having our sensation of hearing or smell awakened) unless so far as we judge them to come from this or that direction. (Observe a dog when it perceives a sound or a smell). Space, for those who have sight, is interpreted so much in terms of vision, that we are apt to overlook the dependence of our original knowledge of extension upon the sensations of muscular movement and upon complex sensations of touch. Space cannot be analysed simply into terms of time, though we always do use our notions of time and space to help each other out.

But, as I have said, extension is not the only element in externality. We come to believe in *externality* through feeling resistance to our efforts, through experiencing interruptions, contradictions, incoherences in the flow of our sensations and ideas. We come to perceive an external *world*, through finding that these seeming irregularities belong to a coherent and intelligible system, in relation to which the sensations of different senses can be interpreted and fitted together, and which has a meaning for other minds besides our own.

* To use the term "external perception" might seem to assume the point.

REPLY TO MR. BOSANQUET'S PAPER.

By SHADWORTH H. HODGSON, *President.*

MR. BOSANQUET has done me the honour of leaving almost undiscussed the special subject of this evening's debate, in order to devote himself to demolishing my treatment of it. The points which he urges against me are so grave, that I must be pardoned if I explain myself with some minuteness. I shall consider them under two heads; 1st, his statement that I have apparently borrowed from Kant's *Refutation of Idealism* a corollary from the thesis which, in his opinion, I am most concerned to maintain, namely, "that the mind is not an immaterial agent;" 2nd, that one of the two forms in which I have stated my conclusion is inconsistent with my own analysis.

1. As to the first point, I certainly was not thinking of Kant's *Refutation of Idealism* when I wrote my paper, though I will not undertake to say, that it may not have originally suggested the idea, that the perception of objects in space is a pre-requisite of the perception of Self. The debt which all the world, and especially all students of philosophy, owe to Kant is immeasurably great, and it is difficult to distinguish, in any line of thought which deserves to be called philosophical, what parts or elements in it are specially traceable to his initiative. There are, however, two very distinct modes of this indebtedness. One is on the score of his most instructive exhibition of how his own thoughts work, under the necessities imposed upon them by his own method; the other on the score of his clear insight into imperishable truths, under which head is to be noted especially his holding fast to the unity of human nature in the two great departments of its activity, called by him the Speculative and the Practical Reason, which is the inspiring principle of his whole system of philosophical thought, and his unswerving loyalty to which deserves our deepest veneration and gratitude. This, however, does not immediately concern us now. I turn to the question of the perception of Self, as the condition of the perception of objects in space.

Here Mr. Bosanquet has entirely mistaken my meaning. He thinks that I am merely repeating Kant's proof, that the perception of the phenomenal Self, as object of the inner sense, pre-supposes a perception of phenomena in space, as objects of external sense, both kinds of phenomena being held by him to be real, in opposition alike to what he calls Cartesian, and to what he calls Berkleyan, Idealism; whereas my intention was, and is, to attack Kant's identification of

his assumed noumenal Ego or Subject, evidenced (as he thinks) by the Transcendental Unity of Apperception, with the supposed inner or subjective source of the so-called *a priori* element in experience. This doctrine, this identification, of Kant's, on which the whole theory of the three Critics (or *Critiques*, if the French form of the word is preferable) is founded, involves, as I conceive, the very fallacy which he exposes as a *sophisma figure dictionis*, in his Chapter on the *Paralogisms of Pure Reason*. And the thesis which I really consider it important to maintain, and which I urge in the concluding sentences of my paper, is,—not the psychological thesis, that the agent in consciousness is material (although I do hold this to be in psychology the best working hypothesis),—but the strictly philosophical thesis, that analysis of experience, without any prior assumptions as to its sources, whether phenomenal or noumenal, is the only secure basis of philosophy. Psychology in my view logically comes after and depends upon philosophy. Thus, in my discrimination of the four questions, No. 2 and No. 4 are psychological, following and depending upon No. 1 and No. 3 respectively, which are philosophical.

Mr. Bosanquet seems not to have noticed the following sentence in my paper, "The sum and substance of Kant's *Critic of Pure Reason* consists in first falling headlong into the fallacy just signalled" [that of hypostasising *Das Innere*] "and then showing at great length the unknowability of the entities which he has thereby fallaciously assumed." What I maintain is, that Kant himself demolishes the foundation of his own theory. For if, as he argues in the Chapter on the *Paralogisms*, we have no knowledge whatever of the Soul as the object of Rational Psychology, it is illogical to assume that it is an activity or real agency, co-operating with something not itself, or itself in another form, to produce either synthetic *a priori* judgments, or any other modes or forms of experience.

Kant's famous Critical Theory must therefore be itself characterised as a theory belonging to what he calls the empty science of Rational Psychology, and one founded on an illegitimate psychological hypothesis. It is not philosophy; it is not even *Kriticismus* in any justifiable sense; it is Transcendental Psychology. Its whole fabric consists of deductions from a psychological assumption, which being baseless leaves it like an ingeniously constructed cloud-castle in the air. For the pure or abstract Subject of consciousness is just as much, and just as illogically hypostasised, when it is assumed to be real activity, as when it is assumed to be a simple immaterial substance. And that it is hypostasised as a reality is shown by a positive function being attributed to it, namely, that of giving rise to the *a priori* element in experience, and so giving law to Nature. No

mere logical form, not even the great Principle of Negativity, unless hypostasised as a reality, can be supposed to do anything like that. Such is the fallacy into which Kant falls, because he takes up the question of the genesis of experience, before taking up that of its *whatness* or analysis. Hence his Chapter on the Paralogisms is virtually a demolition of his own theory,—a demolition with which I heartily concur.

But Mr. Bosanquet will perhaps say, "Oh, this is all matter of history, and has been explained over and over again by the late Professor Green, by Professor Caird, and others." I do not know whether it has or not. What lends the point its interest in my eyes is, that the assumption of agency in consciousness, or of consciousness being an agency, as for instance in thinking, has never been abandoned by the Germanisers, nor taken for anything but a self-evident fact. Whereas in my opinion it requires proof, and that proof drawn from experience alone, not indeed after the fashion of the English Empiricists, but by subjective analysis of experience as it actually occurs. I take my stand on the traditionally English ground of Experience, and I say, that if any perceptions or cognitions are necessary or universal, or are necessary or universal elements of other more concrete or contingent ones, then they can be found and pointed out in the texture of experience itself, by analysing it; and moreover, that the fact of such perceptions, conceptions, or elements, being so found is not of itself any proof that they have their source in consciousness as an activity or active agent. The very meaning of Kant's phrase "*ein Actus der Selbstthätigkeit des Subjects*" must be learnt from experience in the first instance. The proof that consciousness is agency has yet to be given. Kant, it is said, made an epoch in philosophy. And so he did, an epoch which has lasted a whole century; but it has been an epoch of fog, owing to the single unwarranted psychological hypothesis, that consciousness is agency.

2. As to the second count in Mr. Bosanquet's indictment, I may be much more brief. He says in effect two things, 1st, that the attempt to exclude our knowledge of the functions of percipients from the analysis which we give of their perceptions results simply in the selection of a few disconnected conceptions arbitrarily supposed to belong to the *data* of the question; and 2nd, that my own analysis does not, as a fact, conform to my own precept in this respect.

As to the first point I can only say, that, when an analysis of the perception of an external world shall have been given in accordance with my method, and in due connection with its context in the totality of experience,—and not merely an anticipatory sketch of the

results of such an analysis taken as an isolated fragment, as in the paper which I am defending,—then it will be seen whether the difficulty of distinguishing the function of perceiving from its concomitant product, the process-content perceived, has or has not been satisfactorily surmounted.

As to the second point my reply is, that every word at our disposal importing consciousness is ambiguous, expressing both some function of a Subject and some content of sensibility, for instance, the words which Mr. Bosanquet takes from my paper, sight, touch, association, attention, comparison. To avoid the evils which necessarily attach to this ambiguity in language was the chief reason, the chief source of the necessity, for my discriminating the four senses in which the question of this evening might be taken, and selecting one of them as the primary and philosophical one. Of course in effecting this discrimination I make use of the psychological knowledge, be it more or be it less, which is at my command. But this is a very different thing from introducing psychological elements into a philosophical analysis, when the two kinds of questions have been discriminated. I do not anywhere in my sketch of an analysis build upon the function expressed by a word, but always and only upon the content expressed by it. I made it sufficiently clear as I thought (though it seems I was mistaken), that it was a philosophical and not a psychological analysis that I was dealing with. I cannot fairly be blamed for not repeating this reminder whenever I have occasion to use a word importing consciousness. If the words which Mr. Bosanquet quotes are taken to mean function rather than content, then the sentence in which they stand, and which (I admit) most readily suggests that meaning, must in fairness be understood as an anticipation of what belongs to question No. 2, and not as introducing functions into the analysis of question No. 1. I do not for a moment deny that, when we come to the psychological question, the question of the *genesis* of the perception spoken of, we shall require a *vera causa*, for which we must have recourse to the functions of the Subject, and which can only be ascertained by the positive science of Psychology.

REJOINDER TO MR. HODGSON'S REPLY.

By B. BOSANQUET.

It does not appear to me that the self now alluded to by the President could ever, according to Kant, be the object of a perception; and therefore it could not, if I am right, be regarded as the object of a perception prior to that of the external world.

REPLY TO MR. RITCHIE'S PAPER.

By SHADWORTH H. HODGSON, *President.*

MR. RITCHIE has addressed himself to the fourth and last of the meanings which, according to my discrimination of them, the question of this evening may bear, whereas I addressed myself to the first. Our two papers, therefore, move on different planes, and can hardly be said to come into collision. With reservation of the point at which they might possible collide, the point of logical priority as between the two questions, No. 1 and No. 4, I am happy to find myself in substantial accordance with Mr. Ritchie's paper. There are, however, one or two minor matters on which I should like to say a word.

And first, as a plain man myself, I should like to protest against attributing to the plain man that singular notion of his internal world, which Mr. Ritchie says, at page 35, that he probably entertains.

Secondly, as myself a metaphysician, I feel bound to insist, that a man who holds the immaterial substance opinion about the Soul, also spoken of at page 35, is not a "metaphysical man" at all, but a Rational Psychologist. *Qua* metaphysician, "*hypotheses non fingo.*"

I cordially agree with Mr. Ritchie's sentence at page 36, "It requires a great effort to get over this stage, and to realise that the distinction of self and not-self falls within the mental world, *i.e.*, within the totality of our conscious experience," at least so far as it describes the attainment of the distinctive insight which first dispels the Egyptian darkness of merely common-sense conceptions, and admits the first gleam of philosophical light. But I protest against "the totality of our conscious experience" being made synonymous with "the mental world," unless the term *mental* is understood in a figurative and popular sense. It is better, in my opinion, to keep the terms *mind* and *mental* for psychological, as distinguished from philosophical or metaphysical use. The mental and the physical belong alike, and in the same sense, to "the totality of our conscious experience." Both import some real agency; the terms *consciousness* and *experience* do not.

Lastly, on page 37 top, in speaking of the plain man's meaning of *reality*, Mr. Ritchie gives two tests of it. He says: The plain man "means most usually that which is not simply experienced by himself at the moment, but that which may be valid for him at other times; moreover,—and this is the more important test of reality,—he means that which is valid for the other people as well

as himself." Both tests are no doubt employed, and both are valid. But I hesitate to call the second the more important. At any rate, it is not the ultimate one, but rests upon and presupposes the first. And for this reason, that other people, and their expressions of agreement or disagreement, are themselves part of that external world the reality of which requires testing, and this can only be done by an appeal to something which lies within the conscious experience of the person who tests it. But this is not all. Mr. Ritchie's first named test is the one by which the conception of reality itself is established in the first instance. The second can only be applied after this concession has been established, that is, to particular cases which fall under it. Judged by this standard, the first test is by far the more important of the two.

REJOINDER TO MR. HODGSON'S REPLY.

By DAVID G. RITCHIE.

THE President has only criticised details in my paper; so that the very briefest reply is all that is necessary. (1.) What the plain man means by the internal I must leave to the plain man to decide; *i.e.*, I appeal to ordinary language, and not to a careful use of terms such as the President would employ. (2.) I used "metaphysics," as it is very commonly used, to include the three "dogmatic" philosophical sciences, ontology, cosmology, and rational psychology. (3.) I admit that "mental" *may* be used in antithesis to "external;" but I think it is a false and unworkable antithesis, and, in any case, it falls within the mental in the wider sense, from which we distinguish the *merely* mental. (4.) Other people's experience is only an available test so far as it comes within our own experience. But I do not think coherence in one's own experience alone is ever a *sufficient* test of Reality: else, *e.g.*, the colour-blind person could never be brought to admit that he was colour-blind, or the blind person to understand the physical theory of light: the individual, as individual, would be the measure of existence.

THE PERMANENT MEANING OF THE ARGUMENT FROM DESIGN.

By B. BOSANQUET, *Vice-President.*

THE point of view from which I desire to start in approaching this question may be thus stated: that while it appears to me that nothing is gained for the interpretation of the world by the assumption of a divine intelligence underlying it, it also appears that beyond the abandonment of an otiose hypothesis nothing is determined in the interpretation of the world by surrendering this assumption. The problem, if I am right, remains, then, exactly where it was before. We desire to know something of the fundamental nature of the system in which we find ourselves. I speak of it as a system without hesitation, because in these days no one denies it unity in the bonds of mechanical causation. From this point we start.

Before proceeding further, I would lay down another principle, which I think is usually disregarded. Granted that we are not to assume merely what we desire, I further maintain that we are to defend in theory what we *are* forced to assume in practice. Interpretation and analysis are here in place to any extent; what we *are* forced to assume is one of those troublesome problems in which opinion as to facts actually modifies the facts within very considerable limits. I only maintain that, when all is said that can be said, we must not allow the basis of life to be incompatible with the basis of thought, and that to do so is a co-ordinate form of cowardice with that which assumes in theory the reality of whatever we desire in practice.

It seems to me quite plain that as soon as the conception of the Supreme Being passes from that of a person outside the forces of nature to that of an intelligence which is one with the forces of nature, the element of intelligence becomes otiose, being merely the accompaniment of a system of causation which it can in no way control. But this does not bring us a step nearer to answering the question, of what kind is that system of forces itself?

In the form which especially interests us this question refers to the position of man, as a being with purposes, in the machinery of nature; and in this shape it has attracted the attention of the most untheologically minded of philosophers — notably, of Kant and Herbart.*

* See Herbart, W., 8, 401.

What reason have we to suppose that the causal system in which we live will permit the realisation of any of the more important and remote purposes which make up our moral life?

Of course we have a certain amount of knowledge about the mechanical properties and tendencies of the earth, and at least of the solar system, and, it may be said, we must form our judgment about the probable future of climate, and of the earth's surface generally, on scientific grounds, and we must frame our plans and ideas accordingly. Now this is clearly the least that we must do, and this the interest of curiosity, not to speak of higher motives, makes it quite certain that we always shall do. But I do not in the least believe that our *de facto* habits of action can now be explained, whatever may be the case in the extreme future, by our particular knowledge.

I do not believe that it bears any such proportion to the bulk of the universe as would make it of serious importance in judging our course for the future. I do not separate it from the convictions on which we act; I regard it, so far as it goes, as the accurate embodiment of these convictions; but I do not believe there is enough of it to do much in justifying them. I think we have to go further afield, and, in so far as we reflect at all, to justify our practical faith, without which action is wholly impossible and inconceivable,* by reflection on the tendencies of the world. I see no theoretical objection whatever to doing this, in spite of the abandonment of the idea of an intelligent designer. We are not bound to know, we never shall know, what brought the universe about; but we know that a system of forces may be of the most various characters, and that we think quite differently of different systems, according to the results which we have partially observed in them.

I will now go briefly into the question, beginning with formal characteristics, and proceeding to more positive ones.

We start with a causal system, which is assumed to be a unity in the sense that its parts are assumed to act upon one another. Technically, I think I am justified in saying that every inductive inference, however exact and however trivial, involves a judgment as to the nature of this unity. We cannot go in any inference, straight from one particular to another particular. We always do go, and always must go, by the circuitous route through the nature of the process, or continuum, or system, to which they both belong. It is well to remind ourselves sometimes of the old platitude that experience, as sensuous experience, does not and cannot contain the future. If we

* See Herbart, W. 8, 401.

want to get the future, or unknown of any kind, out of particular experience, we must go behind the particulars, and make out what sort of continuum it is that they enter into, and read off what we want to know from the proportion of this continuum. Thus all the judgments which make up the Nautical Almanac depend on convictions which we have formed as to the continuous nature of certain motions and attractions in the bodies of the solar system.

As calculations in exact science, we may say that they are all hypothetical; but in the sense of conditions of action we take them as real predictions, and if they were seriously falsified our civilisation would be thrown out of gear. In comparison with what we call design or plan, the unity involved in the continuance and interdependence of these motions is a formal unity, that is to say, the detail which we infer from it is all composed of parts added together, such as we are acquainted with already; therefore we are within the limits of simple inference according to causality. We are expecting the underlying unity to do what formally it has never done before, but nothing which in type and substance it has not done before. It is simply continuing on its way, though in doing so it does meet and conform to a necessity of human life as we know it.

Now we know that the parts of Nature can "destroy" one another, as we say, that is, affect one another's form of existence by turning it into something wholly different from what it was. Man is a part of nature. Is the causal system which produced him of such a kind that his fundamental purposes can find realisation in it, or that it will not destroy him, as man, at any casual moment? Of course I am quite prepared for the counter argument that the system of things does not conform to man, but he has conformed to it, and must, further, in making his designs conform to it. But all this, taking things as they are, has very narrow limits. A simple change in atmosphere or temperature, the disruption of the globe, or very considerable convulsions on its surface, and he is gone with all his morals, and his purposes, and his theories.

Is there any reason, outside the imperfect evidence of exact science up to date, itself ultimately resting on the conviction of a continuity in nature, to suppose that such changes or convulsions are not to be looked for? Can we infer anything from what has been called the appearance of design in nature?

When the question is thus stated, I do not think that the mode of origin of species touches it. If the whole system is a single chain of causation, I do not think that the order of determination in it makes any difference to its character. Within a causal whole there is no distinction of priority. Granted that the hierarchy of services between the different orders of creation does not mean that the sub-

servient creature is made with reference to its superior, but only that the survival of the higher creature was determined by the existence of the subservient one. This does not alter the character of the great machine; the tendency to co-operation and to consciousness remains a fact; and it appears impossible that it should not be reflected in our conception of the unity of the world.

Two arguments, directed against the interpretation of this unity on the analogy of a plan, demand examination.

The first of these depends on the question of alleged waste and failure in creation, which, on the accepted doctrine of the origin of species, is in a sense, not incidental, but essential to the causal process. Here, again, I feel compelled to retort the emphasis, having however first conceded that pain and death are factors in animal life which a human being naturally deprecates.

But as they are general factors of the very life with which our purposes are identified, they do not by themselves interfere with the only relation which we are now seeking to establish, viz., that of a conformity between the continuous nature of the world and human life at its best. We can see, that as life really is, pain and death are essential to its nobleness and its possibility. Having said this much, I must insist that to introduce the purely moral terms, failure and waste, into our judgment of the lower orders of creation, is a far worse piece of anthropomorphic fallacy than to see a plan where there is a causal system of a particular nature. The conception of failure as applied to the individuals of a variety which is defeated by a better adapted variety seems to me quite unreal. Every individual has to die; I do not know that, if these individuals die soon, they are conscious that their life is shorter than that of others, nor do I know that their deaths are more painful than those of any other individual creatures. As for waste, this is again a moral idea; and I cannot see its application to the regions below human purpose. Most species of the orchid, with its cunning contrivances for fertilisation, and its enormous number of seeds, remain comparatively rare plants, at least, in England; but I suppose the matter thus employed may as well be doing that as anything else, and if we take in human ideas, for otherwise I do not see how to suggest a purpose at all, its clumsiness and wastefulness make it a very curious and interesting plant.

The strongest objection under this head is that drawn from the less fortunate ranks of mankind. And here I cannot help illustrating the alleged coldbloodedness of science by saying again that for the limited purpose which we have in view we must not apply our ideal standards to intelligences whose happiness is not relative to them.

It may have been a deprivation to a palæolithic man that he was not a Christian and a Londoner in the nineteenth century, but he could not feel it to be any misfortune, and it is a tremendous anthropomorphism to read back our ideal into him and say that he was a failure and a wasted life. In the same way we must judge throughout, accepting as a standard of success the mixed life which enters even into our ideal, and in the case of those who cannot possibly be tormented by an ideal, only requiring the success or absence of failure which depends on the conformity between their life and their instincts. Looked at in this way, though the world is a rough place, it has not the fiendish horror which comes of applying our ideal morality and happiness as the sole test to every human being. The idea of waste and failure is a survival of the theological idea of universal condemnation. The sense of failure is probably greatest just at the moment of favourable change, such as we have among the wage-earning class to-day. I protest, then, against applying the conception of waste and failure in the non-moral world, and to a great extent against applying it in the less fortunate ranks of mankind. You can only apply to each life the test of success which it in itself suggests.

The second argument against conformity to purpose in Nature is that of the separateness of man. Here the new teachers, say Professor Clifford, seem to me to ride on two horses. If man is to gain anything by being supernatural, they say man is natural; if nature is to gain anything by man's being natural they say that man is supernatural—or at least extra-natural. They must choose between these two principles, which are incompatible. I do not think the question is verbal. When we read Professor Clifford we really might think that we were reading some very superstitious theologian who thinks that nature is as savage as can be, but man is inspired by a good spirit, and has for his task to put things straight. Now of course an evolution may change its direction; but not, one would think, so that its latter part is purely incoherent with its beginning. If we are to call man a natural product, which is certainly my inclination, we cannot omit all reference to intelligence when we come to define the unity of nature, through which alone, as I said, the very commonest and simplest inference can be made. There is one feature in respect of this argument which seems entirely to upset the alleged difference between man's sphere of purpose and the supposed purposeless sphere of nature. This feature is to be found in the greater achievements of man's intelligent volition. These achievements, which affect us with the strongest sense of intelligent design, are essentially organic and not volitional. Let us think of such examples as the development of philosophy or of art, the British Constitution, the Roman Empire, the Church of England, even a

great cathedral building. Now a purpose, in the very strict sense in which we distinguish man's conscious purposes from natural results, can only exist in the individual mind; but none of these things, as they ultimately came to completeness, was ever a purpose in any individual mind. Of course the same thing extends into the purposes of numbers of minds, but only as the same coral reef enters into the instinctive purposes of countless coral insects. The conscious adjustment of purpose is enormously greater in the work of man than in the coral reef, but the real factor in both lies somewhere below, in that which causes the insect and the man to find himself at the right moment in the right relation to the other workers. And this something, the cause of the relation between instincts and between purposes, does not fall within the several instinctive aims or conscious purposes themselves. It constitutes their nature but it is not their aim nor their doing. The individual man consciously aims at what he knows, and provides for the conditions which he understands; but when his work is done it bears a relation to the rest which no one fully foresaw, and which is owing not to the wisdom of the individual, but to the wisdom of nature—of course a metaphor or a problem. If you force me to choose between the notion that rationality only exists within the purpose of the individual man, and the notion of an overruling Providence, I must choose the latter, *i.e.*, simply as a view of the *de facto* course of the world.

I only insist on this so far as to infer that you cannot dissociate human purposive action from the causality of nature. Its greatest results are natural, although on a higher plane than the products of unconscious nature.

Therefore, though it is fallacious to gloss over the difference between intelligence and the unconscious, I do think that the truth lies in the direction of assuming the greatest possible kinship between them which is compatible with their actual difference. And I believe that if we lay aside the shallow optimistic standard which is at the root of pessimism, and only ask for the possibility of such a life as forms our proximate ideal, we shall find reasons to think that the causal power which has created man is probably of such a nature as to give room for his development up to some marked grade of completeness, and for some sort of new tendency and appropriate change of ideal if and when the race is to come to an end.

I have not laid protracted stress on the necessary relation between faith and action, because it seemed to me too plain; but I will read a straightforward passage from Herbart whose principal thesis is on the opposite side, *i.e.*, against any dogmatic creed about the future. It would be no more than true to say that all action implies a belief in the possibility of the end proposed.

“ ‘But* there is inherent in our minds a sort of augury of future ages; and in the greatest intellects and the noblest spirits it exists most strongly and is shown most readily. And if it were withdrawn, who is mad enough to live continually in labours and perils? ’† After all repudiation of groundless world-plans there assuredly remains not only the need but the right to extend our gaze into the unbounded future. Everything incites to it which man can think of as the possible result of his noblest endeavours, everything great and beautiful that has been achieved by others, by the State, by humanity, demands it. The point is only, as in every other contemplation, to have firm ground under one, and avoid caprice and misinterpretation. Man should not appear small in his own eyes; his action or abstinence should not seem insignificant to him; great efforts ensue only from great anticipations; but also it is only well-founded expectations that can sustain courage through long periods and in changing circumstances and renew it after every necessary repose.

“What has been said of politics and education would lose all meaning if the future were so closed to our eyes that man could consider himself all the wiser, the more his thoughts and cares were limited to the immediate present.”

Then can we deduce conclusions of particular fact from moral necessity and natural tendency? No, I think not. This shows the extreme profoundness of Kant’s discussion on these subjects. We must conceive of our principle as a general faith in the *de facto* reasonableness of the machine in which we are a part, which faith is gradually taking shape in science, and cannot take a *definite* shape in any other way, but nevertheless, as a general postulate, is the basis even of science itself, which consists from beginning to end of conclusions about the unity of nature, and all vanishes at once if we do not believe that nature is fairly stable and fairly accessible to reason. I feel the danger of these considerations and of everything that seems like casuistical optimism, but for the mere interest of the matter I may end by calling attention to Kant’s treatment of the fact that progress is by conflict,‡ and that nature undoubtedly uses man as a means and not merely an end, when he suggests that for moral development this is a necessary method, though for sheer hedonistic development it might not be so.

* Herbart, W., 8, 400. Tel. R. d. Moral, Sect. 212.

† Cicero quoted by Herbart.

‡ Kritik. d. Teleol. Urtheilskraft, W. 4, 327 ff.

PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

FOR THE

SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.
No. 1, Part II.

CONTENTS.

	PAGE
The Philosophical Pons—By the President	51
On the Meaning of Life—By Rev. W. L. Gildea, D.D.	65
Theories of Pleasure—By G. E. Underhill	77
Symposium—Is the Distinction between "Is" and "Ought" Ultimate and Irreducible—By Prof. Sidgwick, J. H. Muirhead, G. F. Stout, and S. Alexander	88
A General Analysis of Presentations with a view to their Interaction—By G. F. Stout	107
Scotus Erigena "De Divisione Naturæ"—By Clement C. J. Webb	121

APPENDIX.

Report of the Executive Committee for the Thirteenth Session	140
Financial Statement	141
List of Papers read during the Thirteenth Session, 1891-92	142
Arrangements for the Fourteenth Session	143
Rules of the Society	144
List of Officers and Members	147

THE PHILOSOPHICAL PONS.

By SHADWORTH H. HODGSON, *President.*

I.

HAVING been called upon to supply a paper for this evening's discussion, I cannot, perhaps, do better than avail myself of the opportunity for recalling attention to the subject of the first principles of philosophy, there being always danger, in a Society like ours, of these being dropped too much out of view, under the pressure of the very various subjects of more special interest, which rightly and properly fill the greater part of our sessional programmes.

The famous fifth proposition of the First Book of Euclid has been dubbed the *Pons Asinorum* of Geometry, I suppose in the sense that failure to understand it manifests hopeless incompetence in matters geometrical. It is by allusion to this that I should wish my expression the *philosophical pons* to be understood; but by allusion only. Philosophy is not yet in a position to have a *pons asinorum* in the original sense. It cannot as yet boast itself the proprietor of a structure so valuable. Geometry is an exact and long-established science. Its professors, therefore, may well say to the novice, so long as you fail to comprehend such and such a proposition, you will continue ἀγεωμέτρητος. But there is no possibility of saying the like with regard to any proposition of philosophy. Barring certain principles and rules of formal logic, the use of which is common to all kinds of knowledge, and not peculiar to philosophy, I do not think any doctrine or proposition can be mentioned, which has so much as the unanimous assent of philosophers, far less the prerogative of serving as a test or touchstone of incompetence in philosophical reasoning. The philosophical system, in the sense in which each of the positive sciences is a system, has still to be constructed.

Then why speak of the philosophical pons, if none exists? You may think me venturesome, but the reason is, that I am going to propose one, in shape of the statement and proof of a central doctrine, peculiar to philosophy, round which other doctrines of philosophy may as it were crystallise, and the denial or misconception of which carries with it *ipsi facto* a departure from the philosophical domain, a μετάβασις εἰς ἄλλο γένος, that is to say, a passing over into some other region of thought or method, outside the thought and method of philosophy. There is to a certain degree a

consensus of opinion upon the end and purpose of philosophy, and to this I make appeal in submitting to your judgment the central propositions in which, as I conceive, is expressed the indispensable minimum of philosophical thought, to contravene which involves the dephilosophising, so to speak, of the thought in which the contravention occurs.

The end and purpose of philosophy I take to be this, to give a reasoned account of what we call the universe we live in, so far as our powers of observation and thought enable us to do so. And for this purpose, I farther assume it to be generally agreed, that we have to approach our object from the subjective side, always asking, in the first instance, what we immediately perceive or immediately know of the phenomena in question, apart from all assumptions about them, and not beginning, as the positive sciences do, and in many cases rightly do, with what we immediately perceive or know of the phenomena *on the supposition* that they depend upon laws, in some cases of a reality called Matter, in other cases of a reality called Mind. These supposed realities are, for philosophy, among things to be investigated, not among things to be assumed. The term *subjective* does not necessarily and from the first carry with it, in philosophy, the assumption of a real Subject.

This being premised by way of orientation, the statement which I propose to call the philosophical pons consists of two propositions which run as follows:—

1. All consciousness reveals Being, or, there is no consciousness which does not reveal Being.
2. All Being is revealed in consciousness, or, there is no Being which is not revealed in consciousness.

PROOF OF PROP. 1. *Experiential*.—Consciousness is, at the least, awareness of a content, as for instance, of a sound, a colour, a pressure. This content exists as an immediately perceived fact; its Being is revealed in the awareness. Without awareness of a content, consciousness would not be what we mean by the name. Therefore, all consciousness reveals Being.

PROOF OF PROP. 2. *Also experiential*.—For, try to think of Being which is not the content of an awareness, or not revealed in consciousness, and you think of it as the content of an awareness in the act of trying to think of it as not the content of an awareness. Therefore, to think of Being as not revealed in consciousness involves a contradiction, or in other words, all Being is revealed in consciousness.

Several remarks must be made on these two propositions. In the first place, it is evident that they do not convey any particular

information, or lay down any specific principle, from which particulars may be directly deduced. They clear the ground and nothing more. Perhaps some of us would stigmatise them as "merely formal." Yet, even so, they are not unimportant, for they stand in the place of definitions of the subject-matter of philosophy, and embody its claim, since it embraces consciousness, to be all-embracing in its scope and range. But this very fact shows that they are not definitions of consciousness or of Being, in the strict sense, I mean, that they are not definitions *per genus et differentiam*. For such definitions are possible only where the thing defined is picked out, and separated by the definition from other things, leaving those other things beyond its pale. Here, on the contrary, there is nothing which is so excluded; whatever can be brought into awareness is Being of some kind or other, and is thereby claimed as part of the subject-matter of philosophy. It is by description only, though based on a distinction, not by strict definition, that the subject-matter can be demarcated. This description is given by means of a double or cross reference, the two aspects of the subject-matter being co-extensive, consciousness and its content, or knowing and being, one subjective, the other objective, to the other. The moment of experiencing anything, which is the moment of consciousness, contains both aspects in itself. Whatever we know, whether it be sensation, inference, pleasure or pain, emotion, surmise, or imagination, must come to us as experiences of this sort. The two propositions do nothing more than draw out into distinct statement the fact, that experience in its widest range is the subject-matter of philosophy. Whatever may be said, verbally, to lie beyond this widest range is nothing for us, unnameable, unthinkable; for if it were anything that could be thought or named, it would not lie beyond but within it.

2. In further elucidation of this position, I remark in the next place, that the terms *consciousness* and *being*, as employed in the two propositions, are general terms, of each of which the *meaning* alone is predicated by reference to the other term. The first proposition states the meaning of consciousness by reference to being, not the existence of consciousness as dependent on the existence of being. The second states the meaning of being by reference to consciousness, not the existence of being as dependent upon the existence of consciousness. Knowing and Being are exhibited as inseparable aspects of each other, inasmuch as each is necessary to the meaning of the other. The propositions must not be understood to contain more than is demonstrated by the proofs given of them. And the meaning of the terms *consciousness* and *being* is all that is included in these proofs.

When we come to particular beings and particular states of consciousness, the real existence of a particular idea does not imply the real existence of the being which is its object, nor does the real existence of a particular being imply the real existence of an idea representing it, except so far as we or third persons have and must have an idea of it, in order to make the supposition of its existence. The two propositions of what I call the *pons* declare something which is an indispensable element in the meaning of consciousness and of being; they do not allege, either that ideas are evidence for the real existence of their objects separately from the ideas of them, or that all objects, whether real or assumed to be so by third persons, must necessarily be perceived in some particular consciousness, other than that which is involved in making the assumption. If any one should here object, that in this case the two propositions describe only the proceeding and hypotheses of the philosopher, not the necessary constitution of the subject-matter of philosophy, the answer is, that in their most general aspect (which alone is under consideration) these two things are the same, both alike are consciousness or experience. Philosophy is consciousness examining consciousness with conscious purpose and by consciously adopted method.

3. Thirdly I remark, that to confuse the relation between ideas and their separable objects with the relation between the inseparable aspects of experience leads to the denial of the latter relation, and consequently to the imagination of Things-in-themselves, which are supposed to be real but unknowable. The two propositions of the *pons*, as I have tried to explain them, are the assertion of complete relativity between knowing and being, in the sense that nothing can be asserted *to be* which has no meaning in consciousness. By *things-in-themselves* are meant things which really *are*, though they have no meaning in consciousness, the name being given them in order to distinguish them from phenomena, which have such a meaning. The inexhaustibility of the world of being by a finite consciousness is the truth which gives plausibility to the denial of the second proposition of the *pons*. A reality, in any given case of experience where inference comes in, may be very different from our separable idea of it. But this does not show that the reality has no meaning in consciousness. Its full meaning is perceivable only by omniscience, its outline-meaning is perceived by us who call it a reality.

Thus, for instance, we often hear it said, that we do not know, and never can know, what constitutes the secret or ultimate nature of Matter, or of the Physical Action of particle on particle, or more generally of Causation. Suppose we grant that it is so: say that all this lies beyond the limit of our possible knowledge. But what then? This does not touch the point in question. The point is, that,

merely in supposing something real to exist beyond the limit of our possible knowledge, we *ipso facto* conceive it as an object which an addition to our powers of sense or thought would enable us to know in a specific way. The limitation comes from our limitation as organic beings, not from the nature of consciousness, of which we are the vehicles or Subjects. It is a fallacy to confuse the nature of consciousness with the nature of particular Subjects of consciousness, or with that of consciousness limited thereby, though we are easily deluded into it by the fact, that we have only one set of formulas to describe them both, namely, the phrases in which the personal pronouns *I*, *we*, *mine*, or *ours*, occur.

The effect of the confusion which I have signalised, involving the denial of the second preposition of the pons, is to limit the range of philosophy by imagining a world beyond the reach of consciousness, out of all conceivable relation to the world within that range, and yet real, whereas the world within it is only phenomenal. This fiction, when admitted, dephilosophises philosophy. It puts an idea drawn from the limitation of man's positive knowledge, an idea which belongs to science, in the place of the philosophical idea of the nature of knowledge and of the nature of its relation to reality. That man's positive knowledge is limited both in kind and degree is an undoubted truth; but it requires setting in its true light by means of the philosophical conception of knowledge, a truth which needs interpreting.

This is evident when we consider, that, on the one hand, the idea of a limit to positive knowledge presupposes the idea of a being beyond it, which might be positively known but is not. For, as Ferrier of St. Andrew's showed in the *Agnology*,—which is perhaps the most valuable part of his *Institutes of Metaphysic*,—there cannot be ignorance of what cannot possibly be known; for instance, we may be ignorant that $17 + 32 = 49$, but we cannot be ignorant that $17 + 32 = 50$, for this is no part of possible knowledge. On the other hand, to assume that there is no being at all beyond the limit of positive knowledge is wholly unwarrantable, and would fairly deserve the name of dogmatic Nihilism. We therefore require some investigation into the connection in thought between the region within and the region beyond our positive knowledge, and this investigation is claimed for philosophy by the propositions of the pons. I therefore signalise both the doctrine of Things-in-themselves, and the confusion with it of the truth that man's positive knowledge is limited, as things which lead away from the really philosophical track of thought, and preclude the arising of a genuine philosophy.

4. I have next to call attention to the distinction upon which the

description of the pons is based, the distinction of the two co-extensive and inseparable aspects of experience. The distinction is that between knowing and being, or knowing and known, as opposite aspects of each other, or of experience, which is not a third thing, but is the two aspects over again, called by a single name. This circumstance at once gives the description its unlimited scope, and avoids the employment of assumptions in giving it. The distinction is found as a fact in experience itself, in the moment of experiencing. It is not a distinction between any supposed conditions or objects of experience. It is the distinction between knowing and known, not between knower and known; it is the distinction between contrasted moments of experience, afterwards called subjective and objective aspects, not between Subject and Object, Ego and Non-ego, Ego and Objects, Mind and Matter, the Psychical and the Physical, Soul and Body, the Inner and the Outer, all which distinctions come later in logical order, and all require particular evidence and justification, a justification which some of them at least fail in my opinion to obtain.

To understand the distinction embodied in the pons as if it either involved or was equivalent to any of these distinctions, would be to render it unfit to be the fundamental or governing distinction in philosophy. It would at once import assumptions into philosophical method, and narrow the scope of philosophical enquiry. It is precisely in order to depose these distinctions from their place at the helm, that I put forward what I conceive the true distinction. The members of these distinctions, Subject and Object and the rest, all lie on the objective side of the true distinction between knowing and being; they all require inferential proof, since proof simply and directly experiential fails them; the idea of a real being, capable of action and re-action, which is an acquired idea, is an essential constituent of them. Experience, therefore, with its double aspect is logically prior to and independent of the proof of any one of them. Whenever, in entering upon the examination of the phenomena of consciousness or experience, we take one of these distinctions as our basis, we are not philosophising but psychologising; we are examining, not the phenomena of consciousness as a whole, but the relations of those phenomena to an assumed agent or Subject of it. What we have then to be careful of is, first, that the hypothesis which we adopt will stand the test of experience, and, secondly, that whatever hypothesis we adopt, we do not imagine ourselves to be philosophising.

5. There is another cognate psychologising assumption which is also excluded by the propositions of the pons, namely, the assumption that consciousness itself (as distinguished from the Subject) *does something*, or is an agency governed by laws of its own, laws of

its action as an agent. Whether it is so or not is a question which falls within philosophy, and when it occurs is not pre-judged, in either sense (since the subjective moment of knowing may be itself objectified in subsequent moments), by the statement that consciousness reveals or is the awareness of Being. The fact that we naturally, perhaps necessarily, use verbs active in describing the nature of consciousness, must not delude us into importing agency into the nature of the thing described. Add this element, the element of agency, to the statement of the pons, and you will turn it into an Hegelian *Begriff*, or rather, since it is all-embracing, into that *Begriff* which develops by intus-susceptive energy into Hegel's *Absolute Idee* and *Absoluter Geist*. The objection to this importation of agency into consciousness is the same as to the importation of Subject, Ego, Mind, and the rest. Agency belongs originally to the objective side of the true distinction between knowing and being. It belongs to the being, not to the knowing. We must first obtain an idea of it before we can attribute it to either. It must logically begin by being objectified. Then, but not till then, it is open to any one to bring evidence, that knowing as distinguished from being is an energy.

II.

I now pass on to some remarks on the relation of our two propositions to the body of philosophy, and the precise bearing and influence which they have upon the subsequent course of philosophical thought. They may be called the pons of philosophy in another sense than that of a test. They may be likened to the drawbridge which gives access to the fortress of philosophy, across the surrounding moat which severs it both from ordinary and from strictly scientific thought. For they express in the shape of distinct assertions that insight or perception, which is the first dawning of philosophical thought on minds till then engrossed with non-philosophical conceptions and interests. This dawning may be said to consist, briefly described, in the idea that strictly speaking there is nothing but consciousness in the universe; or more precisely, that the existence of anything which *primâ facie* is not consciousness is inferred from something else which is, and that the inference itself, including the whole whatness, meaning, or content of the thing inferred, is consciousness also. This, I say, is the first philosophical thought, the dawning of philosophy on the mind. All further progress in philosophy depends upon this thought being held fast and rightly interpreted, with careful exclusion of false additions and implications, which our previous non-philosophical habits of thinking are only too ready to suggest as necessary and self-evident.

Against some of the more prominent of these false implications I have given reasons under several heads in the former part of the present paper. But it remains to say what is the precise residue contained in the two propositions of the pons, after excluding these, and what indications this positive residue affords, as to the track to be followed by philosophical thought, if it is to remain true to its original insight. For this insight itself can never be reversed. It has the warrant of continued experience, as a thought which we find forced upon us whenever we try to reverse it, just in the same way and to the same degree as the fundamental axioms of mathematics have. The test in both cases is—Try to think otherwise, and you find you can't.

Now no sooner does the new insight dawn upon the mind, than we are struck by its incongruity with our previously existing notion of the ordinary and familiar universe of real persons and things. The thought that there is nothing in the universe but consciousness is wholly new and strange. We were before familiar with consciousness as an attribute or function of persons, and as revealing other persons and things to the person possessing it; but no question had arisen concerning what may best be called (in consequence of following up our new insight) the *absolute* reality of the person and things revealed, or of the person possessing the attribute, *i.e.*, the conscious Self. Reality in persons and things was a familiar but wholly unquestioned, and therefore wholly uncomprehended idea. Now for the first time the problem is proposed to us,—What is *Reality*? And we have to give ourselves the answer in terms of consciousness, which, by our new insight, is everything, is all that there is in the universe. We have, in popular but expressive phrase, to get our old notion of Reality, but with a reason for it, and therefore reduced to a definite conception, out of the consciousness without that kind of reality, which is now all that we have to go upon. We have to do, with a difference, what those who make a jest of philosophy accuse us of doing, namely, construct the world out of our inner consciousness. I say *with a difference*, because the "inner" consciousness is a mistake on purpose, we have no assumed knowledge of a Self or its so-called "inner" consciousness to help us; and the point of the jest thrown at us consists precisely in suppressing this fact, and retaining as unquestioned the reality of the Self, which at once reduces the attempted philosophical construction to the rank of an arbitrary and fanciful imagination on the part of the constructor. Consciousness in the new insight is not an inner experience, "*innere Erfahrung*," at all. No perception of an agent or agency, of whose interior it is the experience, is contained in it. An "inner experience" which alone is "immediately certain," and "has the priority over all external experience" (Wundt, *Physiol.*

Psychologie, vol. ii, pp. 531, 534, 538, third edition), is a whiff of German mystification.

In simple truth, the new insight imposes the task, suggests the problem, of getting back the old notion of real persons and things, our own Self included among the former, from our actual experience of consciousness, without the assumption of their being immediately known to us. We have to explain our previous familiar idea of absolute realities out of the content of consciousness, which we now see was the only material out of which it could possibly have been framed, and also to say what amount of truth it really possesses. Observe that both the old thought of the universe and the new are permanent; we cannot get rid of either; we have, therefore, to harmonise them by giving a reasoned conception of the meaning of *Reality*, drawn from the facts of consciousness, in place of the previous unreasoned notion of its meaning, which we now call *absolute reality*, in the sense of being unrelated to consciousness.

For this purpose we have to begin by scrutinising the new insight more closely. And it is here, in the scrutiny of the new insight, with the purpose of harmonising it with the old and familiar one, which is also permanent, that the various systems and schools of philosophy take their rise. They do not devote themselves to a scrutiny of the real world as previously conceived, or any department of it, which would be to follow up the line of positive science. But they take what is common and essential to all parts of the world of ordinary and scientific thought, and compare it as a whole with their own new conception founded on their new insight. Their own new insight is what they have specially to scrutinise, when confronted with the general facts or laws which belong to the world of Nature as ordinarily and scientifically conceived. The ordinary world of Nature, as exhibited by the whole range of the positive sciences, is thus at once the *explicandum* and the test of every philosophical theory founded on a scrutiny of the original insight formulated by the poets.

The remarks which have already been made in this paper are an instance of a scrutiny such as I speak of. But I have still to say what remains in the insight scrutinised, after making the necessary exclusions, which may serve as the basis or guide of subsequent philosophical thought, or in other words, upon what course in philosophy it launches us. Two things are obvious, first, the insight is one into the nature and not the genesis of consciousness or experience, and therefore, second, it speaks of consciousness in its full extent, past, present, and future—here, there, and everywhere. It is in short an abstract, but, at the same time, a necessary truth. These two points which it contains as its positive assertions prescribe

in fact the method which philosophy must follow. Let us take them in order.

1. The pons describes the nature, not the genesis, of consciousness, and therefore of Being. It is, as a fact of experience, impossible to account *genetically* for the whatness, content, quality, or nature, either of consciousness as a whole, or of any of its simple, ultimate, or non-composite states. What we commonly call accounting for the origin of any such state, or of consciousness as a whole, is really nothing more than accounting for the *occurrence* of some instance of them, by reference to the particular set of antecedents and concomitants under which it occurs, and without which it would not occur or have occurred. It is thus, for instance, that we are said to account for the colour red in the spectrum. The occurrence of particular vibrations of an etherial medium impinging on the nerve, and so on, will account for the occurrence of the colour or sensation *red*; but nothing whatever accounts for there being such a specific colour or sensation as red in *rerum natura*. The occurrence of different vibrations in the same medium would condition the occurrence of a different colour, the quality of which would be equally inexplicable. Of these qualities, *qua* qualities, no account can be given, for which reason we call them ultimate facts. And the same is true of many other feelings or qualities in consciousness, called ultimate for the same reason, and also of spatial extension and time-duration, which are *whatnesses* of a particular kind bound up with the nature of consciousness, as experience shows they are, though not with the nature of an imagined Subject, as its *a priori* forms, which is the Kantian hypothesis. It is true, that the origin of composite and dissoluble states of consciousness may be given, by pointing out the constituent states composing them, the manner of their combination, and the circumstances or real conditions under which they are combined. The nature and the genesis of such composite states coincide, in each instance of their production or occurrence. But this of course leaves the *whatness* of their simple constituents wholly unaccounted for.

2. From the fact that we have an insight into the nature, but not the genesis, of consciousness and of Being, it follows that the answer to every question of genesis, that is, the genesis of everything that we can think of as arising, must be sought within the limits of consciousness and of Being. The idea of genesis or origin is an idea which pre-supposes that of Being or of consciousness, and the first inkling of a genesis in experience arises within an already given content of consciousness. The idea of genesis, therefore, is applicable only to particular beings, or to particular states of consciousness, not to the whole. The whole is infinite. One of the problems proposed

to us by the new insight, expressed by the *pons*, is—from what part or particular experience of consciousness the idea of genesis arises, and how we come by the idea that genesis is only of the particular, and pre-supposes infinity as its logical condition.

There is thus proposed to us, as the problem of philosophy, by what I have called the new insight expressed by the *pons*, the analysis of our own consciousness or experience, in its whole range, but abstracting from the circumstance that it is our individual consciousness, or that we are the real Subjects of it. We do not deny, but we abstract from this fact, because it is a fact which belongs to the old conception or idea of the universe, previous to the new insight, and therefore has to be confronted with an analysis of consciousness made without introducing it. States or processes of consciousness simply (*ἀπλῶς*) are the really ultimate data of experience; our own individual consciousness is a datum only in the ordinary experience which, by the new insight, we see is not ultimate, but has had a history in consciousness behind it. In effecting the analysis of consciousness, which is the special business of philosophy, we have, therefore, to abstract from the fact that we ourselves are the real agents, persons, or Subjects, of the consciousness analysed, because the acquisition of the knowledge of this fact is one of the things which has to be accounted for by the facts of consciousness alone, as perceived by the new insight. In making this abstraction for the purpose of philosophical analysis, we do not quit in imagination our own individual consciousness and adopt the point of view either of a collective consciousness, or of an imaginary “world-consciousness”; our purpose is to give, by analysis, the steps by which we arrive at the knowledge of this very fact of our own individual reality as real persons or Subjects of consciousness; and it is for this reason that we cannot suppose it to be already known, previous to the analysis.

Now supposing that we have to some extent succeeded in this task, that we have corrected and justified by philosophical analysis the conception which we form of the real Subject of our own consciousness, then we should have, in that conception, whatever it may be, the philosophical basis of a scientific psychology. Prior to such a justification of its central conception by philosophy, psychology stands on an infirm basis, assuming some entity, it knows not what, as the Subject of which it speaks. The psychological Subject which stands the test of philosophical analysis is to philosophy an object of one kind among many; and not only so, but there are as many psychological Subjects within the kind, as there are individually conscious persons or beings, each of which is the centre of his own universe of consciousness or experience, and each the *locus* in which

is developed an individual consciousness, the nature of which consists in the double aspect, subjective and objective, which reveals Being, the nature described by the *pons*. When it is said that psychology accounts for the genesis of consciousness, it is not meant that it accounts for the nature of consciousness, or for consciousness in its entirety, but only for the occurrence of a certain limited number of modes, and combination of modes, of consciousness, by referring them to the nature and properties of real Subjects in relation with their environment. The genesis and subsequent history of individual consciousnesses is what psychology deals with, or in other words, with the relation of individual consciousnesses to the real Subjects, upon which the occurrence of them is proximally conditioned. Psychology thus takes its rank among the positive sciences, as the one which stands nearest to philosophy, inasmuch as it deals with the genesis and development of consciousness (which in its entirety is the subject-matter of philosophy alone) so far as the ideas of genesis and development are applicable to it.

In conclusion I would refer to two facts already mentioned and closely connected, which are of especial importance. We have seen that we cannot in any way account for the ultimate nature or quality of any part of consciousness, and we have also seen that we have the power of expressing every case of such a specific ultimate nature or quality by a general term, which of necessity implies that we conceive other cases to be possible, similar or analogous to the particular instances in which the specific nature or quality has been actually experienced. From this we must perforce conclude, that the specific qualities of consciousness which we actually experience or imagine, or which are our endowment as human beings, are limited in number, and that we can set no limit to the number or kind of those which are possible to beings differently constituted from ourselves. In this respect we may compare ourselves, as psychological Subjects, to houses of glass so coloured or manufactured as to admit only rays of certain specified kinds, out of countless other kinds which traverse space. At the same time, our endowment includes both a power of generalisation, and certain forms of perception which extend beyond all positively or specifically-given contents; I mean the forms which may be briefly designated as those of Time and Space, some elements of which are inseparable constituents of consciousness, so that we cannot escape from the idea of infinity, and not only of the infinity of those forms, but also of Being in its entirety, in respect of the richness or variety of its content, which we must conceive as existing, but of which we have no specific experience. In consciousness there is a zone of specifically apprehended experience, and an infinite zone, or rather region, beyond it,

of experience not specifically apprehended. It is impossible to treat philosophy aright, and not come into contact with facts like these.

Analysis of consciousness or experience in its whole range, and in point of nature as well as genesis (so far at least as to see what is really meant by genesis) is the task set before us by what I have called the new insight, the meaning of which I have tried to render explicit in the propositions of the *pons*. Philosophy is the systematic pursuit of truth on the method dictated by that insight, single in its method, all-embracing in its scope. It is a valid and systematic method, and yet is not a positive science, but rather the subjective equivalent or counterpoise to all of them, seeking the nature and not the genesis, not of their already objectified phenomena, but of the knowledge which we have of them.

For this reason all philosophy is metaphysical. No term could more happily express its subjective and analytical character, analytical of the knowledge which, in consequence of the new insight, we see that we really have of that world which, previous to the new insight, we knew only as a world of persons and things, given and revealed to us, apparently ready made, through the medium of the bodily senses. The nature of Being as Being is what Aristotle takes to be the proper subject of those treatises of his which, by a happy accident, are called the *Metaphysica*; and there is no way to the nature of Being but by analysis of the nature of Knowing, as is shown by the fact which I have called the new insight, and have endeavoured to embody in the *pons*. It was an empty dream of Kant's to bind Metaphysic to the chariot wheels of his theory of the genesis of knowledge, by defining it as a science, which, so far as its aim is concerned, consists solely of synthetic *a priori* judgments (*Prolegomena*, passim; and *K. d. R. V. Einleitung*, Sect. V). A systematic enquiry which is governed by the idea of genesis is science, one which is governed by the idea of nature is philosophy. The distinction between the two ideas is itself philosophical. Its first clear enunciation is found, I believe, in Plato. Science therefore, so far as logical order is concerned, has both its beginning and its ending in philosophy. Just as consciousness is the subjective aspect of all objects, which, in order of knowledge, are formed out of its content, so philosophy is the subjective aspect of the positive sciences collectively, each of which selects some class of given or inferred objects as its proper field, and explores that field under the guidance of the idea of genesis.

Applying this to psychology, we see that, as one of the sciences, it must be ultimately based, not on the distinction between mind and body, or on any distinction which, like that, is derived from the

ordinary or pre-philosophic conception of the universe, but on the distinction between an individual or particular consciousness and the real condition or conditions of its genesis and development. I mean that it is this distinction alone which can bring psychology into harmony with philosophy. Very different from this is the method usually followed by psychologists. This latter method consists, first, in assuming that the word *Soul* means the real agent or agency, upon which the phenomena of consciousness depend; secondly, in explaining those phenomena, by referring them, wherever possible, to neural processes; and, thirdly, in inventing a special science of *a priori* conceptions, which they call Metaphysic, and to which they depute the task of justifying their assumption of real psychical agency. For an exemplification of this current method I may refer you to the sixth and concluding *Abschnitt* of Professor Wundt's *Physiologische Psychologie*, 3rd edition, from which I have already quoted. The Germans have in fact no philosophy; they have a number of so-called philosophical sciences; first, the false or pretended Metaphysic, then the Theory of Knowledge (*Erkenntnistheorie*), thirdly, Psychology, and then the more specialised derivatives of the two latter.

The task which psychologists thus try to shift from their own shoulders to those of the pretended (not the true) science of metaphysic is ultimately this,—to find in the realm of Being some reality which corresponds to their own fictitious conception of the substance or causal agency specifically underlying consciousness. They intercalate a fiction of their own between consciousness and its positively conceived real conditions, and then call on the pretended metaphysic to explain its ultimate essence, as if it were not a fictitious conception but a phenomenal reality. On the plea that the physicist has nothing to do with the ultimate essence of Matter, they argue that the psychologist has nothing to do with the ultimate essence of Mind, forgetting that Mind is not like Matter a phenomenal reality, but is itself an *ens imaginarium* of their own coining, an entity which is metaphysical in their own sense of the term. The proof that it is a peculiar substance or causal agency underlying consciousness has yet to be given. The whole fallacious procedure is thus neatly and admirably summarised by M. Ribot. Having spoken of “l'essence intime de la pensée,” he continues, “La science n'a rien à faire avec ces questions insolubles. . . . La connaissance d'un fait, c'est la détermination complète de ses rapports; le reste est affaire de métaphysique.” (*Psychologie Allemande*, p. 346, 2^e edit.)

The true province of psychology, which is the genesis and development of consciousness as existing in individuals, in dependence on its positively conceived real conditions, is wholly comprised within the

second of the three steps above mentioned, and in this field it is that all its recent triumphs have been won. Psychology is gradually but surely learning to confine itself to this its true field; at the same time sloughing its old skin of ontological prejudices. But while the sloughing is still going on, the old skin seems to it another snake's, and alive; as yet it does not see that it is its own, and dead. There is no other snake it can belong to. Metaphysic has likewise sloughed the old skin which grew to it in the Kantian epoch, and now psychology is following its example.

ON THE MEANING OF LIFE.

By REV. W. L. GILDEA, D.D.

A "pure intelligence" is, according to St. Thomas, one who can read into the heart of a thing at a glance. St. Thomas even derives the word "intelligere" from "intus legere," reading into, reading within. We are not pure intelligences. We acquire our knowledge not by intuition, but by means of reasoning; a circuitous, round-about process, and hence called *discursus*. Our knowledge of substances and things is not immediate. We can know them only through their special manifestations, their properties, their effects. *Operatio sequitur esse*. As a thing is, so it operates, and conversely as it operates, so it is. Effects require a cause proportioned to their production. As are the effects, the manifestations; so, in its proportion, will be the thing made manifest. We do not know life in itself, but we may know the manifestations, the properties of life. And from the manifestations we shall argue to the nature of life. The nature is that whence the properties spring. Nature is so called by reason of this. *Id unde nascuntur proprietates*.

Having premised that life and the living thing are to be known by their manifestations, we commence our enquiry on life. Place, on one side, a piece of lifeless matter, and on the other, some very low form of living thing; say, for instance, an *amœba*. What special manifestation do we find in the *amœba* to mark it off from the piece of lifeless matter? Evidently it is the power of self-movement. The lifeless matter is not wanting in movement. On the contrary, its every atom is throbbing with constant movement in response to the mighty forces of nature working around it and about it. But its movement it derives entirely from without. It has within itself neither operation of self-movement nor source thereof. Now look at

the amœba, or at one of the monera of Haeckel. There is self-movement at every instant, and of a very high order; for the lowest form of self-movement is high. Some particle of organic matter suitable for its nourishment is carried near to the amœba. The amœba is at once aware of its presence and will appropriate it and feed on it. But how accomplish this? The amœba is a mere shapeless mass of jelly-like protoplasm. It has neither hand to seize, nor stomach to digest. Fear not for the amœba. It has a splendid faculty for improvisation. It extemporises an arm and seizes its prey. It thrusts the luscious morsel into its own soft substance; improvises a stomach without more ado; digests its food and assimilates it. Thus appropriating, digesting, and assimilating, the amœba grows till it reaches maturity, and then multiplying itself by fission, it forms new individuals of its kind. In short, it exercises all those functions which are exercised by organisms of perfect structure, and which we call functions of life. Living matter is then easily distinguished from non-living matter. It is distinguished by the power of self-movement. No matter what form self-movement may take provided there be self-movement, there is life. In his treatise on "Plants" Aristotle says that life is manifest in animals. Now, we say that an animal lives from the time that it exhibits power of self-movement. Let it lose this power of self-movement and we say that it is dead. Those things then are living which move themselves according to any species of movement; whether movement be taken strictly and materially, or whether it be taken metaphorically, that is, in the sense in which any action by which an agent passes from potentia to act is called movement. In this latter and metaphorical sense, Aristotle, in his treatise on the "Soul," calls intellection and sensation movements. Indeed, in his "Ethics," Aristotle states that the movements of intellection and sensation are more than any other movements the movements of life. The truth of this dictum of Aristotle will appear from the quotation from St. Thomas with which I shall conclude the present paper. Such things as lack power of self-movement are called non-living, though they may be, figuratively, called living in so far as they simulate life. In this sense a brook of running water is called living. Life then is the power of self-movement. Whence comes this power of self-movement, this life? Are we to seek its origin in matter? Certainly, matter *qua* matter cannot be the source of life; otherwise, as St. Thomas has pointed out, matter would always connote life. "Some ancient philosophers," says St. Thomas, "unable to transcend imagination, thought that bodies were the sole realities, and that what is not body is nothing. And thus they said that the soul or first principle of life is a body. The error of this opinion might be demonstrated by many arguments. We content

ourselves with a single argument. It is evident that not every principle of vital operation is the soul, for thus the eye would be the soul, as it is a principle of vision; and so with the other instruments of the soul. But we say that the first principle of life is the soul. For although a body can be a principle of life, still no body can be the first principle of life. For it is manifest that to be the first principle of life, or living, does not belong to the body, *qua* body, else every body would be living or the principle of life. It belongs then to the body to be living or the principle of life, *qua tale corpus*; inasmuch as it is *such* a body. But that which is *actu tale* is such by reason of some principle which is called its act. The soul, therefore, which is the first principle of life, is not body, but the act of body." Still, may not life be nothing more than the result of a certain arrangement of molecules of matter? In all living bodies there is Protoplasm; and Mr. Huxley has in consequence called protoplasm the "physical basis" of life. It may be remarked in passing that the title "physical basis" does not seem a good one. The word "basis" suggests either a mechanical support, or the principal element in a chemical combination. But we cannot consider life either as a substance mechanically supported by another substance; or as one chemical element in combination with another. A less misleading title for protoplasm would be life medium or physical condition of life. May not life then be a property of matter in the combination of protoplasm? The reply to this question must be a very emphatic No. Protoplasm is reducible into carbonic acid, water, and ammonia, or more ultimately into carbon, hydrogen, oxygen, and nitrogen; not to mention certain other elements which are present in much smaller quantities. Now just as in protoplasm, carbon and hydrogen combine to form carbonic acid; nitrogen and hydrogen combine to form ammonia, and oxygen and hydrogen combine to form water, so from analogy it might seem that carbonic acid, ammonia and water combined form living matter. But this is really not the case. The chemist combines carbon and oxygen, and the result is carbonic acid. He combines nitrogen and hydrogen, and the result is ammonia. He combines oxygen and hydrogen, and the result is water. But he may combine carbonic acid, ammonia and water, till he is black in the face, yet he will never produce living matter. We know exactly of what elements the egg-contents are composed. Their proportions and affinities can be expressed in arithmetical formulas: how much oxygen, how much hydrogen, how much nitrogen. We can blend these elements in the same proportions for ourselves. Yet all the powers of science cannot make an egg that shall hatch as much as a tadpole. No doubt science has been successful in artificially producing substances which are identical with organic secretions, as, for

instance, ammonia. But we are still as far as ever from the power to produce living matter. "We are doubtless able," says Liebig, "to adapt, alter, intensify, and neutralise the cohesive forces in the atoms of organic combinations. We can by the combination of two, three, or four organic atoms create molecules of a higher order, or we can resolve such combinations back into their constituent atoms. But we cannot from its constituent elements produce even one of these organic combinations. No laboratory will ever create a cell, a muscle, a nerve; in a word, any truly living particle of an organism." But nature often succeeds where art fails. Yet not even nature can beget life save by means of life. Men of science are now universally agreed that there is no trustworthy evidence of living creatures coming into existence save by the intervention of parental organisms. Thus Balfour, Stewart and Tait declare that "all really scientific experience tells us that life can be produced from a living being only." Virchow asserts that the doctrine of abiogenesis is "utterly discredited." And in his Wiesbaden address (1872) Virchow says, "Never has a living being, or even a living element, let us say a living cell, been found of which it could be predicated that it was the first of its species. Nor have any fossil remains ever been found, of which it could ever be likely that they belonged to a being, the first of its kind, or produced by spontaneous generation."

Mr. Wallace affirms that "the three distinct stages of progress from the inorganic world of matter and motion up to man (he means the stages of life, sensation, and intelligence), point clearly to an unseen universe—to a world of spirit, to which the world of matter is altogether subordinate." Professor Huxley and Professor Tyndal speak in words which are well known. "No shred of trustworthy evidence," says Mr. Tyndal, "exists to prove that life, in our day, has ever appeared independently of antecedent life." The "in our day" of Mr. Tyndal is of a rather more restrictive character than we like. Professor Huxley speaks somewhat more fully. "The fact is," he says, "that there is not, at the present moment, a shadow of trustworthy direct evidence that abiogenesis does take place, or has taken place within the period during which the existence of life on earth is recorded. "But," he continues, "it need hardly be pointed out, that the fact does not, in the slightest degree, interfere with any conclusions that may be arrived at deductively from other considerations that at some time or other abiogenesis must have taken place." What are these considerations? We find them in the next paragraph of the article (Biology, *Encyc. Brit.*) from which the last quotation has been taken. "If the hypothesis of evolution be true, living matter must have arisen from not living matter; for, by the hypothesis, the condition of the globe was at one time such that

living matter could not have existed in it; life being entirely incompatible with the gaseous state." The considerations then resolve themselves into a tender consideration for the evolution theory. In spite of every reason to the contrary abiogenesis must be true. Why? Because if it is not true evolution must lie on the ground a headless, armless, lifeless Dagon. We cannot permit this. We must save Dagon even if it be at the cost of consistency. Well does Professor Mirart say, "Those who affirm that though life does not arise from inorganic matter now, nevertheless it did so 'a long time ago,' affirm what is at the least contrary to all the evidence we possess. And they bring forward nothing more in favour of it, than the undoubted fact, that it is a supposition which is necessary for the validity of their own speculative views." Mr. Huxley will not give up abiogenesis, because, if abiogenesis goes, evolution must go. Burmeister and Büchner have a better reason still. They will not give up abiogenesis, because if abiogenesis goes, God must come. Burmeister says that the hypothesis of spontaneous generation must be accepted "since without it, the appearance of organic life upon the earth could only be explained by the immediate operation of a higher Power." "How this development of organic being took place," says Büchner, "cannot be as yet explained with scientific precision. But it is to be hoped that future investigations may throw more light on the subject." Here is one more admission that materialism is, in our day, as impotent to assign a scientific basis for its position as it was in the days of Lucretius. But whether future investigations throw more light on the subject or not Büchner will remain true to the hypothesis of abiogenesis. And here is his reason. "If science," he says, "found itself obliged to admit a vital force, our principle of the universality of the laws of nature and the unchangeableness of the mechanical order of the world would fall to the ground. We should have to admit the intervention of a higher Hand, changing the course of nature and producing effects outside of our calculations." We must keep out that higher Hand, apparently, at all costs. And thus these writers, who are so fond of insisting that all science rests on experience, throw over, what they acknowledge to be, the sole experience of the origin of life, because they are convinced, with an eminent English Positivist, that "you cannot make the slightest concession to metaphysics, without ending in a theology!" I may here recall to mind one of the attempts which have been made to bridge over the chasm which separates the organic from the inorganic world without the assistance of God or theology. In the first Deep Sea Dredging Expedition, some slimy matter which was dredged up from the bottom of the sea and which was fondly hoped to be a portion of a layer of semi-living matter, covering a large area

of sea-bottom, was preserved with all becoming reverence in spirit of wine. Life in its simplest form was now discovered. The realms of life and not-life were no longer separated by an abyss. Haeckel is undoubtedly a name deserving of honourable mention; and it is also a name which confers honour. Professor Huxley thought to honour both Haeckel and the slime by entitling the latter *Bathybius Haeckelii*. Bathos had perhaps been a better chosen name than *Bathybius*; for, some ten years after the momentous discovery, another discovery was made not without its relevancy to the previous one. Mr. Huxley set the results of the new discovery before the public, in his speech at the Sheffield meeting of the British Association; and he washed his hands of *Bathybius*. "For some time after that interesting *Bathybius* was launched into the world," said the Professor, "a number of admirable persons took the little thing by the hand and made very much of it. . . . And so things went on, and I thought my young friend *Bathybius* would turn out a credit to me. But, I am sorry to say, as time has gone on, he has not altogether verified the promise of his youth. In the first place he could not be found when he was wanted; and, in the second place, when he was found all sorts of things were said about him. Indeed, I regret to be obliged to tell you that some persons, of severe mind, went so far as to say that he was nothing but simply a gelatinous precipitate of slime which had carried down organic matter." Mr. Huxley acknowledged his defeat in a manner which was graceful and winning. But gracefully or grudgingly the acknowledgment had to come. There had been some more deep sea dredging, and on this fresh occasion *Bathybius* had not been so thoroughly soaked with spirit of wine. No longer disguised in liquor, *Bathybius* nailed his colours to the mast and stood in his own shoes. The consequence was that he was easily seen to be sulphate of lime; or—to translate technical terms into plain English—honest plaster of Paris. But, it is argued, though abiogenesis be impossible under the actual conditions of nature, still it may have been possible in earlier periods, when the chemical forces were more intense. Wagner shows that this conjecture is worse than arbitrary. "Any greater degree of intensity," he says, "of the physico-chemical processes, any increase of light, heat, electricity and the like, above their normal degree of energy, weakens instead of strengthening vital power; and, after a certain point of intensity, utterly destroys all organic life. Consequently," he concludes, "to assume that to be the cause of the production of organic life, which is pernicious to and destructive of its existence, is a self-evident contradiction." Life, I will say finally, is not a property even of protoplasm which has been produced by antecedent life. What does science understand by a property? The inalienable

characteristic of a thing—a characteristic which is so closely identified with a subject that you cannot separate characteristic from subject without destroying the subject. Does life stand thus inalienably related to protoplasm? Certainly not. Cut off the arm of a living man. The separated member is true protoplasm. Not only the appearance but also the constitution of the substance remain the same. But the arm no longer manifests the phenomena of life. It is true protoplasm. But it is dead.

Over and above then the forces which are the properties of matter, we must admit, as of an entirely distinct order, a vital force. Mr. G. H. Lewis objected to the term "vital force." "You might as well speak of a 'watch force,'" said he. His objection is a baseless one. There is no parallelism between a "watch force" and a "vital force." "Watch force" is identical with the force with which many mechanical operations, other than those involved in the working of a watch, are effected. "Watch force" is no more than the elasticity of a coiled spring. But the manifestations of life are the outcome of a force which cannot be fully and adequately described in terms common to other forces. Any purely mechanical definition, any purely chemical definition of living protoplasm, must necessarily omit the grand characteristic of vitality which gives to living protoplasm its essential and unique position in the system of Nature. Doubtless in every organism physical and chemical forces are at work. But they do not act independently of the organism; nor is the organism the result of these forces. St. Thomas remarks that the processes of nutrition and growth, and even those of sensation and motion, are effected by the vital force through the instrumentality of physical and chemical forces. But, exclude the "vital force," and it will then be impossible for us to explain why matter, which is indifferent to all forms, should assume the form of this particular organism, germ, or species. I think I may say that, after many flounders in the bog of materialism, philosophers are now at length reverting to the teaching of Aristotle on the principle of life. Lotze, who, at one time, was among the foremost advocates of a mechanical conception of nature, now asserts in the most uncompromising way the existence in each animal of a soul or "psyche"; an entity, which, though clearly to be perceived by the reason, is, he tells us, as impossible to imagine as it is to imagine "how things look in the dark." Concerning this "psyche," Wünder says, "The psychical life is not a production of the bodily organism, but the bodily organism is rather a psychical creation in all that by its purposive power of self-regulation gives it precedence over inorganic bodies." To the testimony of these eminent philosophers I will add the witness of the famous naturalist Müller. "In the systematic

co-ordination of its parts," says Müller, "to effect certain results, the organism resembles a machine. But in the germ which it produces it repeats and propagates its own mechanism. Not only does the energy of the organism depend upon the harmonious co-operation of its parts, but further it is itself the primary cause of this harmony. Nor is each part self-subsistent, but each exists only in virtue of the existence of the whole. A machine is constructed by its inventor to do certain works, according to his preconceived idea, for a designed end. And thus each organism corresponds to an idea, and all its parts are arranged in accordance with this end. But the idea is not outside, as in the case of the machine, but within the organism, which necessarily acts in accordance with its own law. Hence the unity and harmony of the organism depend, not on matter taken from without, but on the inward primary principle, already present in the germ before the ultimate differentiation of the parts which it produces, as they are required for the realization of an idea."

Instead, then, of matter producing life, it is the vital principle, which, by the use it makes of material forces, builds up and fashions each individual body as a real existing whole. This is indeed made sufficiently evident by the fact that as soon as the vital principle is withdrawn dissolution follows. The chemical elements, emancipated from the control of the vital principle, obey their own laws, and in consequence corruption ensues.

Carried thus back to the teaching of Aristotle, let us consider the definition which Aristotle gives of this principle of life, or, as he calls it, soul. Aristotle defines the soul as "the first act of a natural organised body having life in potentia." This definition needs some explanation:—

(1) "Act."—As Aristotle points out in his *Metaphysics*, the word "act" (*ἐντελέχεια*) was originally employed to signify the sensible movements of bodies; thence it was transferred to indicate the formal principle of operation; and finally it was used to express the formal principle of being. Aristotle uses the word here in the last-mentioned sense. The soul, then, is classed by Aristotle under the genus of form.

(2) "First Act."—That is to say, the actuality which does not presuppose another actuality, but rather itself confers the being which is substantial and absolutely first. By this particle "first" the soul is distinguished from accidental forms, and from the vital powers and functions; for all these presuppose another act, the primary and substantial act on which they are founded. It is distinguished, too, from subsistence and substantial existence; for though these also are substantial actualities, they are not primary but

ultimate. It must be mentioned, however, that the term "first act" is sometimes taken by Aristotle in a large sense, and is applied by him even to certain accidental forms—to habits, for instance. Such forms—while they confer upon the subject an accidental or secondary being, and, in view of this, are themselves secondary acts—nevertheless, at the same time, dispose their subject for operation, a secondary act; and in respect to this term of operation for which they dispose their subject, they may be called themselves first acts. Such a form would be, to employ the illustration of Aristotle, the habit of science. The habit of science is a secondary act in relation to the accidental being which it confers; but it may also be called a first act, if it be considered as a principle disposing the subject of science for the actual consideration of truth. Now Aristotle defines the soul as a "first act" both because it is the formal principle which gives primary being to its subject, and also because it disposes its subject for the secondary act of operation. But there is, as St. Thomas points out, still another reason for calling the soul the first act of the organic body; a reason which does not hold good with respect to the inferior substantial forms; and it consists in this, that the soul is separable from its operations, or that it can stand without at least some of them; or, shall we say it consists in this, that the animated body can desist from some of the operations of which it is capable. Plants possess the faculties of increase and germination, but they are not always exercising themselves in these processes. Brutes are possessed of various passions, yet they exercise these passions not constantly, but only in consequence of certain adventitious apprehensions. While, on the contrary, elementary forms are always *in actu secundo* of operation throughout the entire range of their energies and activities unless they be impeded by some external agent. "The Philosopher," says St. Thomas (St. Thomas always names Aristotle *The Philosopher*) "calls the soul the first act, not only to distinguish the soul from the second act, which is operation, but also to distinguish it from the elementary forms which are always exercising their activity unless they be impeded." That this interpretation is in accordance with the mind of Aristotle is clear from the comparison which Aristotle institutes between the soul as the act of the organic body and the habit of science as the act of the scientist. Just as the habit of science, or the subject who possesses it, can go forth into the act of speculation or desist from that act; so the soul, or the animated thing, can exercise itself in some of the operations of which it is capable, or desist from such operations.

(3) "Of a Body."—By "body" here we are not to understand a composition of first matter and of some form constituting the matter

in the grade of corporeity, and leaving the composition ulteriorly determinable as vegetative, sensitive, or human; for in this hypothesis the soul would actuate a subject already energised by another substantial form; and thus the soul would not be a first and substantial, but a second and accidental act; whereas, according to Aristotle, it is by the same formal principle that the living body receives being, being of body and being of living body. "We are not to understand," says St. Thomas in his commentary on Aristotle's definition of soul, "that the soul is the act of the body, and the body the matter of the soul, as though the body were constituted by a form which makes it to be body; and that the soul supervening makes the body to be living; but rather that it is from the soul that the body exists, is a body, and is a living body."

(4) "Natural" or "physical."—This signifies that the soul is not the actuality of a merely artificial aggregate.

(5) "Organic."—"That is as organic body," says St. Thomas, "which possesses a diversity of organs." Now a diversity of organs is required in the body which is the subject of life, for the sake of the diverse operations of the soul. For since the soul is the most perfect form, amongst the forms of corporeal things, it is the principle of diverse operations and thus requires a diversity of organs *in suo perfectibili*. But the forms of inanimate things are the principles of but few operations, and in consequence do not require a diversity of organs *in suis perfectibilibus*. Just as the body is not presupposed by the soul, but is itself the product of the soul; so the organization of the body is a product of the soul. "In the definition of forms," says St. Thomas, "sometimes the subject is posited as uninformed, as, when we say 'movement is the act of that which exists in potentia'; sometimes the subject is posited as informed, as, when we say 'movement is the act of the thing moved'; and in this latter sense the soul is said to be the act of the natural organic body, for the soul makes the body to be an organic body, just as light makes a thing to be illuminated." From the words of Wüandt, which were quoted above, it is evident that that philosopher is in full agreement with St. Thomas on this matter. I find a similar agreement in Virchow. "There is no limit," says Virchow, "to the growth of a crystal so long as the requisite matter and conditions are supplied; but for the organism, the imminent, specific form is the limit of its internal development." To define the soul, then, the act of an organic body is to explain the soul by the formal effects which it produces in its proper subject.

(6) "Having life in potentia."—Since Aristotle, as has just been remarked, in defining the soul "the first act of a natural organic body," did not consider the subject of the soul as uninformed but as

informed, it follows that the life, which the body is now said to possess in *potentia*, is not substantial life, for that is supposed to be actually possessed, but accidental life. The soul confers accidental life on the body, inasmuch as, through the medium of its faculties, it renders the body capable of exercising vital functions and operations. "A thing," says St. Thomas, "is said to be in *potentia* in two ways: when it has not as yet the principle of operation, or when it already possesses this, but does not as yet operate in accordance with it. The body is said to possess life in *potentia* not in the first sense, but in the second." St. Thomas further remarks that the words, "having life in *potentia*," were added by Aristotle solely with the view to securing greater clearness of definition. For, as a matter of fact, every organic body has life in *potentia*; and every body which has life in *potentia* is organic. Another definition which Aristotle gives of the soul is "that by which we primarily live and have sensation and move and understand." This definition differs from the former (1) because the former definition considers the soul in its relation to the organic body of which it is the form; while the present definition considers the soul in relation to the vital operations of which it is the principle. (2) The former definition, according to all its particles, applies to all souls. But the terms of the present definition must be applied *disjunctive*. So that its sense is: the soul is the principle of vegetation in the plant; of vegetation and sensation in the imperfect animal; of vegetation, sensation, and locomotion in the perfect animal; of vegetation, sensation, locomotion and understanding in man. When Aristotle defines the soul, "that by which we primarily live and have sensation and move and understand," he must not be understood as distinguishing life from sensation, locomotion and understanding. Sensation, locomotion and understanding are with Aristotle true operations of life. Indeed, as has been already pointed out, Aristotle declares that sensation and intellection are, more than any other movements, the movements of life. When, then, Aristotle says "that by which we primarily live," he is speaking of the lowest form of life, the vegetative life. He gives to the lowest species of life the generic name, just as we give to the brute, the lowest species of animal, the generic name of animal. St. Thomas, following Aristotle, makes very manifest the predominance of life in such living things as are possessed of sensation, and especially in such as are possessed of understanding. The exposition of St. Thomas is, in substance, as follows. In every operation there are three things to be considered. The first is the end for which the operator operates and by which the operator is moved to operation. The second is the form by which the operation is effected. The third is the execution of the operation. Now

there are some agents which can neither determine for themselves the end for which they operate, nor acquire for themselves the form by which they operate, nor, of themselves, execute the operation. Such agents, in no wise, possess life. They are mere instruments as a saw or an axe. The saw has its part in shaping the wood into a bench; but the end is pre-ordained, not by the saw, but by the carpenter. The form of saw was received by the iron from the smith; and, finally, the saw cannot do its work unless it be moved by the carpenter. There are other agents which can in some way act of themselves, and such are all living things. Of living things there are three grades. In the case of some, the end for which they operate is predetermined by another; and the form by which they operate is received from another; still they can of themselves execute certain operations. These constitute the lowest grade of living things; and to this grade belong plants, which receive from nature both the form by which they operate and the end for which they operate; yet, of themselves, execute their operations. The second grade of living things consists of those which can not only execute, of themselves, their operations, but also can acquire for themselves the forms by which they operate, while, however, the end of their operation is determined for them by another; and in this grade are animals which possess sense. Animals exercise sensation, not by a form implanted by nature, but by a form acquired by the sense, that is, by the sensible species. This grade of living things admits of two subdivisions. There are some animals which have only the sense of touch; and these have species only of present objects. There are others, again, which have sensation not only of present but also of distant objects; and such are all animals which possess the power of locomotion. But, though these living things move themselves, not only by executing of themselves their operations, but even by acquiring for themselves the forms by which they operate; nevertheless, the end for which they operate is predetermined for them by nature; for it is by the instinct of nature that they are moved to operate for such an end. The third grade of living things consists of those which not only, of themselves, execute their operations, and acquire for themselves the forms by which they operate, but, furthermore, determine for themselves the end for which they operate; and this is the most perfect grade of living things; and to this belong such living things as act by intellect and will. But this grade also admits of two subdivisions. For, some intellectual agents, while they can of themselves execute their operations, and acquire for themselves many of the forms by which they operate, and determine for themselves many of the ends for which they operate, nevertheless receive the first forms by which

they operate and the last end for which they operate from another. To this grade we ourselves belong; for, while we can acquire for ourselves many intelligible forms, and determine for ourselves many ends, nevertheless, the first principles of the intellect and the last end of the will we must ascribe not to ourselves but to nature. But there is one intellectual agent whose nature is identical with his intellect, and for whom what he naturally possesses is not determined by another. This intellectual agent is God. In God there is found life in its plenitude. "Whence," says St. Thomas, "the Philosopher (Aristotle), in his *Metaphysics*, having shown that God is intelligent, concludes that he possesses the most perfect and eternal life, because his intellect is most perfect and always in act."

THEORIES OF PLEASURE.

By MR. G. E. UNDERHILL.

MY feelings after I had chosen this subject for my paper were much what I imagine those of the undergraduate to have been, who, according to an old Oxford story, was told by the Master of his college to write as an essay, "Something New on the Freedom of the Will." The London Aristotelian Society however will not, I hope, make such an exacting demand upon my powers of originality. So I will ask its members to be content, if I do my best to put together what seems to me to be some of the most striking results of modern research upon this difficult and obscure question.

From the title of my paper you might be led to infer that my method of treatment would be purely historical and psychological. But as a matter of fact, philosophers from the time of Aristippus downwards seem first to have invented their ethical theory of the moral value of pleasure, and then looked about for a psychological foundation on which to base it. The reason for this is not far to seek. All moralists, whether Hedonists or the reverse, have been forced by experience of facts to recognize the extreme, if not paramount, importance of pleasure and pain in moral action and moral character. Consequently the two sides of their theories of pleasure—I mean, the moral and psychological—tend to be complementary one of the other. One of the chief aims of this paper, therefore, will be to show how error in the one theory has infallibly led to error in the other—how it is impossible to obtain a satisfactory theory of morals in general without first discovering a true theory of the psychology of pleasure, and how that the best criterion of the truth

of the latter is to be found in its applicability to the facts of moral experience.

Not many years ago we were told that the only hope for English Philosophy was to go *Back to Kant*; and now if we may judge from two of the most recent English writers on Morals, it has been found necessary to go back further still,—to no less an authority than Aristotle, the patron saint, if I may venture so to call him, of our Society. In my own opinion, at any rate, no real advance has ever been made upon Aristotle's psychological analysis of pleasure, which not only anticipates, but states with much greater precision, as it seems to me, whatever is best in the latest utterances of the most recent evolutionist writers on the same subject. But Aristotle arrived at his own theory polemically—by refuting the errors and advancing upon the correct conclusions of his predecessors. As many of the mistakes of modern English Hedonists seem to me to rest on precisely the same errors, I may perhaps be allowed to sketch briefly the history of the doctrine of pleasure in Greek Philosophy as treated by Aristippus the Cyrenaic, Plato, and Aristotle, emphasising at the same time their points of similarity with modern doctrines.

Aristippus believed that pleasure and pain were two positive feelings, neither of which was the negation of the other. Pleasure he called a smooth motion, pain a rough motion. The neutral state, in which a man feels neither pleasure nor pain, he declared to be a really existent state, not in any case to be identified either with one or the other. This psychology is, of course, extremely simple, and is really based upon certain simple bodily processes, like that of satisfying hunger. With it Aristippus coupled a correspondingly simple, but granting the premises, an extremely logical moral theory—pure Hedonism. The desirability of pleasure *per se* he considered to be sufficiently proved by the fact of our love of agreeable feeling from childhood upwards, of our seeking nothing beyond it, when we had once attained it, and of our avoidance of its contrary pain. Granted, therefore, that pleasure was in itself desirable—and since one pleasure *quâ* pleasure does not differ from another—the pleasure of the present moment must be the end of our actions; for the past is already gone from us, and of the future we know nothing. The happy man is thus the man who enjoys most moments of pleasure, and happiness is, therefore, different from the end of life; for pleasure is desirable *per se*, whereas happiness is only desirable as a system or prolonged series of the momentary pleasures which it implies; and for the same reason, wisdom, justice, &c., are desirable simply as means to pleasures.

This moral theory is doubtless as crude as the psychology. I ought, perhaps, to ask your pardon, even for stating it, and I would

do so were it not for the fact that J. S. Mill's theory of pleasure in relation to conduct is precisely the same; and that he only avoids the same moral deductions by committing, as T. H. Green has conclusively proved, a logical suicide. Once admit that "to think of an object as desirable and to think of it as pleasant, are one and the same thing," then the conclusion of Aristippus is the only one logically possible. And, however much we may admire Mill's fine moral feeling, whereby he makes elaborate distinctions in kinds of pleasure, finds the internal sanction of duty in a feeling in our own mind, and declares the *summum bonum* to be the Greatest Happiness of the Greatest Number, we cannot but see that in doing so he has wholly parted from his premises. To prove this in detail would be to slay the slain. What I have said already, I have said merely to show how in Aristippus an erroneous psychological theory of pleasure—logically followed—has led him into an erroneous moral theory, whereas Mill, with the same psychological theory, has only avoided the same erroneous moral theory by being guilty of the most glaring logical fallacies.

The genius of Plato enabled him to make for himself, and to anticipate almost all the psychological distinctions as to pleasure and pain, which have ever been arrived at. Most of them are to be found fully developed in the dialogue of the Philebus, though some occur in the Republic only. Thus he says that Pleasure is of the nature of the indeterminate (*ἀπειρον*), and that, therefore, it cannot be the Chief Good. This, though of course a very Greek conception, reminds one of the favourite arguments against the Hedonist conception of the *summum bonum* as a sum of pleasures, viz., that pleasures can only occur in an indefinite series which can never be summed.

Then Plato goes on to define pleasure to be a harmony, pain a discord or the breaking up of this harmony in our natural state, or rather both to be the feelings which attend upon, or result from, these two processes going on within us. To show that this is as good a notion of the fundamental conditions of pleasure and pain as we can get, I will quote a sentence or two from Mr. Bradley's recent article in *Mind* (1888): "The two main conditions appear here (*i.e.*, in psychological dispositions) to be *harmony* and expansion. . . . (In pain) it seems to me that discord is the one constant feature."

To return to Plato. He goes on to say that Pleasure may be conceived as a motion or process, as the filling up of a want, pain as a want, where, as Aristotle remarks, he has confused bodily processes with the attendant mental feelings—though he probably meant merely that these were conditions on which the feelings of pleasure and pain depended, not the feelings themselves. In other words, it is simply a way of describing the phenomenon of desire: desire is a

felt want, and on the satisfaction of the want pleasure ensues. Then he makes the great distinction of bodily and mental pleasures, or as we should say, pleasures dependent on bodily and pleasures depending on psychical conditions. He also carefully distinguishes the pleasures of anticipation from other pleasures; and he gives a splendid analysis of pure and mixed pleasures, *i.e.*, pleasures not dependent and pleasures dependent upon antecedent pains. This is known in modern psychology as the Relativity of Pleasure and Pain; Plato here distinctly denies that all pleasure is conditioned by pain, or felt only in contrast with pain. In fact, he affirms, with Aristippus, that there is a third or intermediate state of feeling, in which we feel neither the one nor the other, though this intermediate state may chance, in contrast with pain, to appear pleasant, and in contrast with pleasure to appear painful. Again he expressly puts the question—Do pleasures differ in kind, or do they merely admit of degrees of quantity and intensity? And he answers, that pleasures may be good or bad. Finally, he recognises that pleasure is an element in happiness, but only a single element and not the whole; for in the famous simile of mixing a bowl of happiness, he puts in pleasure fifth and last of all the other ingredients.

Plato's moral theory of pleasure need not detain us, for it is practically identical with Aristotle's, and rests on his distinction of pleasures in kind.

Aristotle adopts Plato's theory almost *in toto*, but with one or two distinctions, which seem to me to make all the difference. Like Plato, he believes that pleasure arises when the different elements of our nature are in harmony with each other, pain, when they are discordant; but he draws a firm distinction between the feeling of pleasure as such and the conditions under which it arises. It is wrong, he tells us, to define the feeling as a process or motion, or as the filling up of a want; really it is a simple whole, which admits of no further analysis, which accompanies the unhindered activity of our functions, whether physical or psychical, in their natural or normal state, and at the same time that it accompanies such unhindered activity, increases and perfects it. Pleasure, therefore, must not be confounded with the activity, for it is not any activity, but merely something felt. It is a mere accompaniment, which owing to our natural constitution we cannot help feeling, if once the requisite conditions be present. This then is Aristotle's definition of pleasure, which I maintain is the best that has ever been arrived at, and which modern writers have, with few exceptions, only somewhat imperfectly reproduced. Take, for example, Sir Wm. Hamilton's definition: "Pleasure is a reflex of the spontaneous and unimpeded exertion of a power of whose energy we are conscious. Pain, a

reflex of the overstrained or repressed exertion of such a power": where by reflex Hamilton means, as he himself says, much the same as "concomitant." Or take H. Spencer's:—Pleasure is a state of consciousness accompanying modes of activity which tend to increase the fulness of life of an organism, while pain is a state of consciousness accompanying modes of activity which tend to diminish the fulness of life.

Before I go on, I ought perhaps to say that in one sense I agree with Mr. Leslie Stephen, that pain and pleasure are words which it is impossible to define. They are of course simple feelings, and as such indefinable. Thus the so-called definitions above quoted merely mean a general statement of the conditions under which they arise.

Under this proviso I propose now to test Aristotle's theory by applying it to some of the main problems of Hedonistic psychology and ethics, aiming to show, that though it may not solve them all, at least it explains the source of many Hedonistic errors, and shows how impossible such explanations really are in most cases. The problems with which I shall deal are Desire and its object, the Paradox of Hedonism, the Qualitative distinctions of Pleasure and Pain, the Relativity of Pleasure, and the Criterion and Summum Bonum of Morality.

To take Desire first: the theory that pleasure and pain are only concomitant feelings, supervening upon something else, at once makes it impossible to affirm that pleasure is always the object of desire. The object of desire as such is always the realization of some idea within our power: for if it be out of our power the feeling is no longer called desire, but wish. The idea to be realized may be anything: it may be the possession of a picture, the attainment of literary distinction, victory in a battle, the motion of our limbs, &c. Now, though it is true that an idea may by a sort of reflex action produce movement in us, the mere idea by itself does not constitute desire. Pleasure and pain are of its essence: for desire always implies tension, a conflict between a present reality which is felt to be painful, and an idea which is felt to be pleasant. Thus the whole mental state, with its concomitant pain and pleasure, constitutes the object of desire. The motive force is rather the pain than the pleasure, and the concomitant pleasure is not the prospective pleasure of gratification, which, as prospective, is not a feeling at all, but an idea; and which, therefore, not being a feeling, has no motive force. The concomitant pleasure, as distinct from any prospective pleasure, on the other hand is present and felt at the same time as the desire, in which it forms an element. It is of course quite true that all satisfaction of desire—all achievement, produces pleasure; but the

pleasure of achievement is not necessarily the cause (though, of course, it may become so), but the effect of the realization of the desired idea. Thus the policeman may desire to catch a thief, and if he catches him, he may perhaps enjoy as the result of his capture, the pleasure of successful pursuit; but it seems absurd to say that it was necessarily this anticipated pleasure which caused his desire. Evidently it may very well have been something quite different.

The so-called paradox of Hedonism, that a man can best attain to pleasure by not making it consciously his object, finds its solution in this analysis. For if pleasure is only the concomitant or effect of other feelings or actions, evidently the sensible thing to do, if we want to get pleasure, is to concentrate our attention on the actions or feelings which are its cause. We must first catch our fish before we can enjoy the pleasures of successful pursuit, and every fisherman will know that the proposed capture is quite engrossing enough to fill the whole content of his object of desire without any anticipated pleasure of achievement at all.

The Relativity of Pleasure and Pain, if it really implied that the same feeling under different circumstances might appear either pleasant or painful, and that pleasure might be the mere negation or diminishing of pain, and pain the mere negation or diminishing of pleasure, would be a serious argument against the Aristotelian theory, that both are positive feelings accompanying psychical activities and states. But Mr. Bradley, in his article in *Mind*, has ingeniously shown that the facts admit of another explanation. "There are," he says, "three points to be considered. In the first place, the physical conditions may be so altered as to give an opposite result. In the second place, in the result we may have new positive sensations. In the third place we must allow for the influence of ideas." His meaning can best be understood by taking an instance, *e.g.*, the relief of the pain of toothache. (1) Here the physical conditions may be so altered, that the cause of the pain may be removed altogether, *e.g.*, by the extraction of the tooth, so that the patient may completely recover his organic state of well-being, which as such will be accompanied by a positive feeling of pleasure. Or (2) the pain may indeed continue, but may be out-balanced by a pleasure arising from new conditions, *e.g.*, the pleasure of listening to music. Obviously, however, if the disease in the tooth were to be increased, the pain would increase, until it would, in its turn, out-balance the new feeling of pleasure. Or again (3), after the removal of the pain altogether the pleasant feeling of well-being may itself cease to be pleasant, because the contrast ceases to be novel, and is gradually forgotten. This case can only be explained through the

influence of ideas. For the idea of a pleasure is itself pleasant, and the idea of a pain is itself painful. "Though pleasures and pains are not relative," to quote Mr. Bradley's words again, "our ideas of them are largely so." Thus in the first relief from toothache the pain itself is gone; but the memory of it remains, and this present idea of a pain, which is itself painful, emphasizes the present pleasant feeling of organic well-being, and makes it appear greater than it really is; so that, as the memory decays, the feeling of pleasure decays with it, and our consciousness may soon be occupied with some new feeling altogether different. The same influence of ideas may also be seen in the case where the pain still continues but is overmastered by a pleasant feeling. And in both cases the converse is equally true.

There is one other psychological fact about pleasure and pain, which is of importance for my present purpose, and that is their opposite effects. Pleasure (to take Mr. Leslie Stephen's statement) represents equilibrium, a state in which there is a tendency to persist; and pain, tension, a state from which there is a tendency to change. Hence their great importance in ethics.

Having thus done my best to show that the Aristotelian theory is a good working theory on psychological grounds, I shall now endeavour to show that on this theory we can explain the difficulties attending a qualitative distinction in pleasures and the errors of the Hedonistic positions, that pleasure is the Ultimate Criterion and the Ultimate End of Moral Conduct.

To start with the Distinction of different kinds of Pleasure. If pleasure, as mere feeling, be a simple whole, which admits of no further analysis, but is complete at any given moment of time, there can be no different kinds of pleasant feeling. But there can be a very great difference in the conditions under which the feeling arises. Thus the distinction between higher and lower pleasures is not in the feelings themselves, but in the conditions under which they arise. The conditions are not made good because they are pleasant, but, being good, the pleasure arising under them is good. One man sees a prize-fight and feels great pleasure, another man does acts of benevolence and feels great pleasure. But pleasure, we saw, as representing equilibrium, tends to persist. Hence, as Plato long ago observed, one of the chief aims of education, if not the chiefest, is to train a man to feel pleasure and pain at the right objects and not at the wrong objects. The moralist does not want to increase the pleasure of the spectator at a prize-fight; he wishes to persuade him to select different ends of action altogether, which will probably be painful to him; and if he knows what he is about, he will not enlarge upon the pleasantness of these different objects (for that is more or less a personal matter),

but he will maintain that these different objects are right and good, and for that and no other reason ought to be and must be done. If this be true, the higher pleasures are the morally better, the lower pleasures the morally worse. But I hear the indignant Hedonist already protesting, and asking by what criterion do I distinguish between good and bad?

At first I feel very much inclined to ride the high *a priori* horse and to say that for my own part I, and I believe most men, have a very much clearer idea of what is right than of what is pleasant. To descend to particulars. Some two months ago I had a clear idea that, under the given conditions, it was right for me to write an Essay for the Aristotelian Society; but certainly I had not then any clear idea of the pleasure, either as to the process of writing, or yet of the result—either of the pleasures of anticipation or of the pleasures of achievement. Still less clear was my idea as to my essay promoting the pleasures of the Greatest Number. And from this point of view I might go on further to say that I am no more concerned with the origin and analysis of the idea of right, than the Hedonist is concerned with the origin and analysis of the idea of the pleasant. But I will be condescending, and will make a distinct statement, viz., that just as what is pleasant is what seems pleasant to the men capable of pleasure, so what is morally good is what seems morally good to the men capable of moral goodness. Is this a *circulus in definiendo*. Logically, no doubt, it is, but all simple feelings or *summa genera* are logically incapable of definition, and can be only accidentally described in terms which may happen to be clearer to the inquirer than the definiend. As a practical definition, however, I think that it is a good one, because there is no practical difficulty in finding out what seems morally good to the morally good man, and because his assertions or beliefs on the subject can be justified *a posteriori* by their consequences. Thoroughly to justify these statements would, I know, need a volume. I will here try to make my meaning clear by asking one or two simple questions.

First of all, how do I, as an individual, learn to know what is good? Secondly, when I have learnt my lesson, what guarantee have I that the good I know is the real good?

To the first question the only answer is that I learn by education. My parents, pastors, and masters tell me what is the good, and at first, at any rate, I believe them. I start with a natural faculty which is capable of either a good or of a bad development. Supposing that it is lucky enough to get the former, then the result is, that I get a practical knowledge of what is the real good, in other words, of the moral ideal, which is afloat in the society in which I happen to live—which is incorporated in its laws, customs and institutions, and

is exhibited in the lives of the good men of that society. But so far my morality is unconscious, I can give no philosophical or theoretical justification for it. It is, as Plato and Aristotle said, based merely on opinion and habit, and not upon knowledge. Thus then we are brought face to face with my second question—What is the real good?

Moral Good, it has frequently been said, is relative to human society, or, as some moderns prefer to call it, the social organism, though there seems to be no reason why the converse proposition should not be equally, if not more true, that the social organism is relative to moral good. But, at any rate, on either assumption the first proposition has a real meaning. It means that by us, whose knowledge depends upon experience, the real good can only be discovered in relation to the requirements of human society. For example, I can only find out that truth-telling is good, and lying is evil, by discovering that the one tends to hold society together and the other to dissolve it. Good always tends to strengthen a society, evil to weaken it. Hence in the struggle for existence the good nations tend to survive the bad. As time goes on, new discoveries are gradually made as to what is really good; it is thus that polygamy gives way to monogamy, slavery and serfdom to free labour. What in particular is good to be done, is always relative to the circumstances of the case; and thus Kant's aphorism is true, that the only thing absolutely good is the good will—the wish of the individual to do that which the circumstances require.

Of conduct and character, therefore, there can be no other criterion than the good itself. To define good (with Mr. Alexander) as equilibrium, whether of conduct as to its parts, or of society as to its members, is rather to describe it by one of its effects than to make the idea any clearer to us.

But I seem to have strayed far away from pleasure, only, however, in order to put me in a position to answer the question, How far is pleasure a criterion of goodness and badness? Directly it is no test at all. If a man is bad, he takes pleasure in bad things, and the pleasure he feels at them, tends to make him persist in them. Ultimately, of course, bad pursuits may bring pain to their pursuer; still, even though they may lead him to the gallows, in a mental survey the numerous pleasures attending them may far outweigh the momentary pain of instantaneous death. No, pleasure is only an indirect test; as Aristotle pointed out, it marks the completion of a good character; for when we not only do what we know to be good, but are pleased at so doing, then we may be assured that our good character is fully formed. So long as we feel any pain at doing good acts, there is a constant tendency to change, and

here change means a change for the worse; but when we feel pleasure at doing good acts, then there is a strong tendency to persist in the doing of them. Good action may thus according to circumstances be attended by either pleasure or pain; and though we are perfectly aware all the time that it is good, we cannot be at all sure which kind of feeling will attend it. In fact, pleasure and pain, unless we use the terms in some much wider sense than that of the mere feelings which we denote by those names, are much too accidental to be taken as at all reliable guides to right action. I may perhaps be able to make my meaning rather plainer by taking the case of oft-repeated actions, say of a labourer doing his daily work to support himself and his wife and family. He goes on doing the same sort of acts year after year, and he knows all the time that they are right; but from day to day the feelings in which he does those acts may alternate variously between pleasure and pain. If the Hedonist objects to this account, and says that his real motive is to get, not indeed, immediate pleasure, but pleasure more remote, namely, the general pleasure of himself and of his wife and children, or at least to avoid pain in his own person and in theirs, I would reply that the Hedonist is now using pleasure in a wider and unnatural sense, as equivalent to happiness or well-being, and that pleasure, as the name of a feeling, is not synonymous with happiness, but is only an element in happiness, which is itself a compound made up of several elements. And thus I am brought to my last question, What is the relation of pleasure to the End of Conduct, to the *Summum Bonum*?

The most important element in the *summum bonum* is the good *will*, which expresses itself in conduct suitable to the conditions of action, in other words, in virtuous actions. Pleasure is the concomitant of such actions, if they are done entirely for their own sake and not as a means to any ulterior good. Pleasure is thus only a subordinate element among the several elements, such as a good will, virtue, perfection, external prosperity, which together constitute happiness; and as such it cannot be regarded as *the end*. Again, pleasure is a feeling, whereas happiness implies something more than feeling, involving amongst other elements, as we saw, a good will. A good will, which shows itself in doing good acts for their own sakes, is the real end at which all men ought to aim, and *can* aim, because they *ought* to aim. To feel pleasure at doing such good acts is, no doubt, a counsel of perfection, but it may very well be beyond a man's power. The moral imperative is plain in the form, speak the truth, because it is right or good; it is at once open to question in the form, speak the truth, because it is pleasant, or because ultimately it is pleasant. The reason of this is, that over

our feelings we have comparatively little control; whereas over our conscious acts we have very much more, even if not complete, control. Further, if such a command be addressed to a bad man, it will produce within him a state of tension and discord, and therefore of pain, which will make it unlikely that he will carry it out, even if he is told that it is right; but if he be told that speaking the truth is pleasant, and that therefore he ought to speak the truth, he will controvert the statement as inconsistent with the fact that to him it is painful. Indeed, good conduct is only pleasant to the good man, and the reason of this is, that he alone can do such acts without a struggle or conflict, and that pleasure is the result or concomitant of such harmony or unimpeded activity.

I have thus come back to my starting point—Aristotle's psychological theory of pleasure as a feeling. I have tried to show that his theory alone is consistent with the facts, and at all adequate to explain them. Had our English Hedonists and Utilitarians only pondered and realised this, they would have saved themselves and their readers much trouble and error; for the plausibility of their theories rests first of all upon an identification of pleasure and happiness, which is a vulgar error that Aristotle's theory had shown up two thousand odd years ago; and, secondly, upon silently substituting for pleasure, which strictly taken is the name of a feeling, the notion of happiness and all that is implied therein; so that when they said, for example, that truth-speaking is good because it is pleasant, they really meant, because it promoted happiness; in other words, because it tends to promote the well-being of society, or, of the social organism. The one statement may or may not be true according to the circumstances; the second statement we know to be true, from our own and other people's experience.

An old Greek poet said *ἐσθλοὶ μὲν γὰρ ἀπλῶς, παντοδαπῶς δὲ κακοί*—we can be good in one way only, but bad in all sorts of ways—and the same is true of pleasure as of evil. Truly pleasure is a good companion, but a bad guide in morality, and well did Aristotle show his wisdom when he said: "In all cases we must be especially on our guard against pleasant things, and against pleasure; for we can scarce judge her impartially. And so, in our behaviour towards her, we should imitate the behaviour of the old counsellors towards Helen, and in all cases repeat their saying, 'If we dismiss her, we shall be less likely to go wrong.'"

SYMPOSIUM—IS THE DISTINCTION BETWEEN “IS” AND “OUGHT” ULTIMATE AND IRREDUCIBLE?

I.—By PROFESSOR HENRY SIDGWICK.

1. I shall assume at the outset of this necessarily short paper, that we are generally agreed as to the objects of thought to which the predicates “is” and “ought to be” are respectively appropriate; though I shall have occasion in the course of the paper to notice certain variations of opinion on both points. I shall also take “what ought to be” to include what is commonly judged to be “good,” so far as attainable by human action, as well as what is commonly judged to be “right,” or “the duty” of any human being. Of course “good” and “evil” as commonly used are wider and less stringent terms than “right” and “wrong”; since (1) the former are applicable to results out of the reach of human attainment—an abundant harvest next autumn or influenza in the winter—also (2) “goods” may be incompatible, to attain a greater we may have to sacrifice a less. But even when unattainable, or not preferable in the circumstances, what is judged to be “good” would appear to have the same quality as the term imports within the range of its practical application; “good” is the kind of thing that we “ought” to seek to produce or maintain *pro tanto* and so far as it is in our power.

For simplicity, I shall mean by “good” in this discussion, “ultimate good on the whole”; and to avoid complicating the discussion, I shall assume that what is good on the whole for any individual agent is also good on the whole for human society, the world of living things, or the cosmos, whichever we take to be the larger whole of which the individual is a part, and which is conceived to have an ultimate good capable of being increased or diminished, promoted or retarded, by human action. That is, I shall assume that “what ought to be” is the same from the point of view of self-interest and from that of duty. The notion of “right” or “duty” is, however, more familiar in ethical discussion to the common moral consciousness of modern men—to which I shall refer as common sense—than the notion of “ultimate good.” But I shall assume it to be admitted by common sense that, from the point of view of complete knowledge, the performance of a duty or a right act must be conceived to be either a part of ultimate good or a means to it.

Taking then the notion of Duty or Right act—I may assume it to be a continually recurrent element in the thought of an ordinary well-behaved person about his own life and that of others. In the thoughts of such men about duties, taken together and compared,

there is doubtless more conflict and disagreement than in their thought about facts; but agreement much preponderates. Apart from such conflict, there is a recognised variation of duties from man to man, but it is commonly assumed that this variation is on rational grounds, so that the duties of A, truly conceived, form one rationally coherent system with the duties of B. Such a system we may call a "world of human duty," of which each man conceives the duties he assigns to himself and his immediate neighbours to be a part indefinitely better known to him than the rest; but he conceives the whole world of duty to be a subject of human knowledge, no less than the world of fact, though the former is lamentably divergent from the latter, in consequence of the general failure of men, in a greater or less degree, to do their duty. The divergence is equally palpable if we consider the "good" results that might be brought about by the performance of duty, as compared with what actually takes place. From either point of view we judge that "what ought to be" to a great extent "is not," and we commonly conceive that its character as "what ought to be" is entirely independent of whether it comes into actual being or not.

2. The question then is raised, whether this distinction between what is and what ought to be is ultimate and irreducible? I think it rash to affirm irreducibility, but I am certainly not satisfied with any proposed reduction proceeding on the lines of scientific thought on which such reduction is commonly attempted; *i.e.*, I do not think the desired result can be attained by considering moral judgments from a psychological or sociological point of view, as elements in the conscious life of individuals or communities or races. No doubt moral judgments and their accompanying sentiments are a department of psychical fact, and we may analyse and classify them as such and investigate their causes, just as we should do in the case of any other psychical fact; but as long as they are regarded from this point of view, it seems impossible to explain or justify the fundamental assumption on which they all proceed, that some such judgments are true and others false, and that when any two such judgments conflict, one or both must be erroneous. One fact cannot be inconsistent with another fact; accordingly, regarded from a psychological or sociological point of view, A's judgment, *e.g.*, that all gambling is wrong, does not conflict with B's judgment that some gambling is right; the question, which is true, does not arise and would have no meaning. The reduction, therefore, of duty to fact, on this line of thought if strictly pursued, eviscerates ethical thought of its essential import and interest.

It may be replied, perhaps, that in this argument I have not taken into account of the notions of life and development, and their

place in psychology and sociology, that possessing these notions, science in this department does not merely ascertain resemblances and general laws of co-existence and change, but in so doing brings out the notion of an end to which psychical and social changes are related as means, and in relation to which alone they are really intelligible; and that this end supplies the requisite reduction of "what ought to be" to what is. For in this end—variously conceived as vital or social "health" or "equilibrium" or "life measured in breadth as well as length,"—we have (it is thought) a criterion of truth and error in moral judgments; if the acts they approve are conducive to this end, they may be counted true or normal, if not, false or abnormal.

To this I answer that End as a biological or sociological notion may, no doubt, be held convertible for practical purposes with ethical end; but that this can only be by an ethical judgment affirming the coincidence of the two: the two notions remain essentially distinct, though when affirmed to be coincident they are doubtless liable to be confused. From the mere knowledge that a certain result is what will be or preponderantly tends to be, it is impossible to infer that it ought to be; so far as it is inevitable, I obviously can have no duty with regard to it; so far as its coming may be promoted or retarded, it is my duty to promote it if I judge it good in comparison with that for which it would be substituted, and to retard it if I judge it to be comparatively bad. Perhaps I may suggest as a reason why this is often not clearly recognised, that in the terms such as "social welfare" or "social health," used to denote the sociological end, the ethical notion is surreptitiously introduced; they are states which have been implicitly judged to be good.

3. When I turn from the point of view of Science to that of Philosophy or Epistemology, before answering the question whether the difference between what is and what ought to be is irreducible, I require to know exactly what is meant by "reduction." Is the difference between two things reduced by merely discovering previously unknown resemblances between them? *E.g.*, we may compare the circle and the parabola without knowing that they are both sections of the cone; should we say that the difference between them ascertained by this comparison is reduced by discovering their common relation to the cone? If so, I think it must be admitted that this kind of "reduction" takes place when we contemplate the difference between "what is" and "what ought to be" from a philosophical or epistemological point of view. For from this point of view we regard the world of duty and the world of fact alike as objects of thought, and—real or supposed—knowledge, and discover similar relations of thought in both, relations of universal to par-

ticular and individual notions and judgments, of inductive to deductive method, &c. ; whatever differences may appear between the two from this point of view are of a subordinate kind, and not greater than the differences between different departments of fact regarded as objects of thought and scientific method. True, if we adhere to common sense, the fundamental difference remains that the distinction between "truth" and "error" in our thought about what is, is held to depend essentially on the correspondence, or want of correspondence, between Thought and Fact ; whereas, in the case of "what ought to be," truth and error cannot be conceived to depend on any similar relation except on a certain theological view of duty, which I will presently notice. Still, even this difference is at least reduced if we take the philosophical point of view ; because, from this point of view, the supposed correspondence between Thought and what is not Thought is no longer so simple and intelligible as it seems to common sense ; it must be recognised as a difficult problem, whatever solution of it we may ultimately accept. It must be recognised that, even in the case of our thought about what is, though error may lie in want of correspondence between Thought and Fact, it can only be shown and ascertained by showing inconsistency between Thought and Thought, *i.e.*, precisely as error is shown in the case of our thought about what ought to be.

Perhaps, too, the difference between "what is" and "what ought to be" may be reasonably held to be relatively reduced, when we contemplate, along with both, various forms of "what might be" or "might have been," as objects of more or less coherent thought for scientific or artistic purposes.

4. Finally, I must notice another method of "reduction," at first sight plausible and more near to common sense than the philosophical. This proceeds on the theological assumption that the true rules of duty are Divine commands—whether made known by external revelation or through the conscience of the individual. Such commands, it is said, may be imperfectly known to any particular moral agent, either without his own fault—in which case their non-fulfilment will be pardoned—or through wilful neglect of known duty in the past, which has had the effect of impairing his moral insight ; but in any case such commands have been uttered, and must be regarded as a part of universal fact. I think, however, that this reduction fails when we work it out. Firstly, we cannot define a Divine command—like a human command—as a wish combined with a threat—since we cannot attribute to God an ungratified wish. Shall we, then, conceive it simply as a threat ? This would clearly offend common sense, which conceives God as not merely an "Omnipotent Ruler," but also a Righteous Ruler, commanding in accordance with a rule of Right.

But thus the difference we are considering emerges again in the form of a distinction between the Rule of Right in the Divine Mind and the Divine Power as manifested in the world of fact; and, emerging, it brings with it the formidable problem of the existence of evil, since we inevitably ask why God's power does not cause the complete realisation of ideal Right and Good. This question has received various answers, but it is hard to find an answer which does not maintain unreduced the difference between "what is" and "what ought to be."

II.—By J. H. MUIRHEAD.

In what I am going to write on this question, I do not propose to criticise Professor Sidgwick's paper. I agree with his contention that any attempt to reduce the "ought" to the "is" "on the lines of scientific thought" can only end in "eviscerating ethical thought of its essential import and interest."

In this paper I propose to take up the question where Professor Sidgwick leaves it in Section II of his paper, and to ask, if we reject the naïve mode of identification there criticised, are we then to regard the "is" and the "ought" the assertion of fact, and the categorical imperative as wholly independent of one another? Or if not, what are we to conceive their relations to one another to be? In trying to answer this question, I may begin by pointing out that ethical writers often speak as though these categories stood to each other in merely a negative relation. Thus in an article in a recent number of the *International Journal of Ethics* (vol. i, No. 1), which I have before me, I find the "ought" of morality sharply contrasted with the "is" of science. "The maxim," it is maintained, "'Do unto others what you would that they should do to you,' does not indicate of itself what happens or ever has happened, or ever will happen—it is a rule prescribing what should happen. It is not gathered from experience, or founded on experience; it is a demand of the mind." This contrast is further emphasised by argument to show:

(1) That ideas of what ought to be are not verifiable. Ideas as to what exists or what happens "are all actually or conceivably verifiable. . . . But how can we verify ideas, not as to what happens or exists, but as to what ought to happen? . . . We have to believe in them, if we believe in them at all, not because they have the fact on their side, but because of their own intrinsic attractions and authority."

(2) Ideas of what ought to be require no explanation. "All that happens, that begins to be, requires explanation. All matter-of-

fact laws, like gravitation, chemical affinity, and the like . . . may find their *raison d'être* outside themselves: may exist, for example, ultimately for moral ends, but the moral laws . . . do not exist for ends beyond themselves, but to dominate all other ends." Here we have in its sharpest form the distinction against which the suggestion in the question at the head of this paper—that the "ought" and the "is" may ultimately be reducible to one another—is presumably directed. Although the distinction itself, as drawn out by the writer, from whom I have quoted, is conceived of in a wholly superficial manner, I agree with him in holding that there is a contrast and distinction, and that it is as wide as the distinction between knowledge and practice, thought and will, the real and the ideal. But this cannot be taken to mean, as the above passages seem to imply, that the moral imperative is intelligible, apart from the facts of the existing moral order. There is, of course, a sense in which it is true, as is contended, that the ought is a "demand of the mind." It is only in so far as the facts of the moral order reflect themselves in the mind and conscience of the individual that they can appeal to him as a moral being. But while it is thus true that duty is prescribed by the *mind*, it is more important for our present purpose to observe that it is prescribed by the *facts* as well, and that it never could be prescribed by the mind unless it were prescribed by the facts. Hence the prime duty of an intelligent analysis and apprehension by the individual of the particular circumstances in which he is called upon to act. No one can perform this analysis for him. Teachers and preachers may indeed provide general maxims such as "Thou shalt not steal," "Thou shalt not kill," "Thou shalt love thy neighbour as thyself," but, as has been well said, these are merely "tools of analysis." The analysis has yet to be made, and it can only be made by the individual who has in view the details of the situation in all its particularity as it presents itself to him. What blinds us to the necessity for this minute analysis of the facts, apart from our general moral obtuseness, is that in ordinary life our duties are comparatively plain. A great deal is said in books on Ethics about conflicts of motives, but in common life these conflicts are the exception, not the rule. When such a conflict actually takes place, and we become engaged in what is called a moral struggle, we may easily observe this process of analysis going on. Take the case (to borrow Professor Sidgwick's illustration) of a gambler, whose conscience is roused as he handles his last 10,000 francs: shall he stake it, or shall he not? Forthwith the analysis is set on. On the one hand there is the calculation of the chances of his winning, all that he might do with the money if he had it again, there is the pleasure of it, it is the plucky thing to

do, and so on. On the other hand there is the chance of losing, the ruin and disgrace, the misery of his family, &c.—the whole process giving, let us say, as the final result, the duty to keep his money in his pocket. When this point is reached, the moral imperative ought not to be conceived of as something super-imposed upon the facts, or setting itself in opposition to them. The “ought” is not something super-imposed upon the “is”; it comes out of it; it may be said to have been given in it, and in this sense may be said to be already a kind of new “is”; it is the “is” in the making, or the “is to be”; it is the is of the fact conceived of as living and moving as opposed to the ordinary “is” which has been defined in this same connection as “the ‘is’ of the fact at rest.”*

But not only may we say that the ought rises out of and falls back into the is in the manner just explained; we may go a step further and say that, inasmuch as the real nature of anything is that which it has in it to become, rather than that which it already is, the essence of human relations (the *facts* of the moral world) and the society which is built up out of them is to be looked for, not in man’s actual achievements in these respects, but in the end or ideal towards which he is progressing. It is this which gives them their form; it is their final cause, and as such determines them to be what they are. As Aristotle said that “in the order of nature, the state is prior to the household or the individual, for the whole must be prior to the parts”; so we may perhaps say that that towards which human society is evolving, that which it “ought to be” is prior in the order of nature to that which already is and constituting its true essence or “isness.” And this dependence of the “is” upon the “is-to-be” is still more obvious, if for the objective we substitute the subjective point of view, and look at the matter from the side of the individual will, and the ideal or “ought-to-be” which it sets before itself. For just as it is true that in the world of idea the system of truth, which we call science, only exists in virtue of the courageous and persevering effort of individuals to comprehend and extend it, and without this would be an unintelligible jargon extending over innumerable books and burdening the shelves of innumerable college libraries, so in the world of will it may be shown that the actual system of moral relations, as we know them, is only sustained by the loyalty of individuals to the duties, which from moment to moment present themselves. But as this loyalty is not, strictly speaking, to anything that “is,” but to an “ought to be,” it is perhaps not an exaggeration to say that the fabric of our family, university, estate, and cosmopolitan institutions, which, looked at from the outside, seems to rest

* Dewey, *Journal of Ethics*, i, 2.

on so solid a foundation, looked at from within, does not, strictly speaking, rest upon anything that is real at all, but upon the ideal structure of the "ought."

The point I have been endeavouring to put may finally be illustrated from the field of science itself. There is no one who resents more keenly the imputation of being an idealist than the man of science. Yet it only requires a moment's consideration to see that, while conceiving himself emancipated from any allegiance, save allegiance to fact, he is really the slave of an ideal, or of something which is not as yet, but which he recognises ought to be. For while it is undoubtedly true that science deals with actual facts, it does so in the interest of an ideal order, not yet actually apprehended, but believed by all workers in this field to be in the long run apprehensible. In other words, science is as much concerned with what ought to be as with what actually is. The conception of what ought to be is undoubtedly based upon what is. Like the ideal of morality, the ideal of science is dependent for its form and features upon experience of the real. But on the other hand, the actual data are, as it were, held in solution to be cast into a new form at the bidding of the ideal. Thus the astronomer, who marks a hitherto unobserved eccentricity in the orbit of a planet, knows that "there ought to be" some cause for it, some neighbouring body perhaps hitherto unknown. This ought to be is, of course, in its leading features, determined by what is: the body must be in such and such a direction, must be visible if at all at such and such a moment. But on the other hand it reacts upon the observer's view of the facts already known, and in the interval between the suggestion of the existence of the new planet and its actual discovery, his mind is engaged in reconstituting the existing data, so as to form, in conjunction with the new cause which his ideal demands, a whole which will be consistent with itself.

There is, of course, an important difference between the ideal or the "ought to be" of science, and the ideal or "ought to be" of morality. In the former case we conceive of the relation to be discovered as already existing in nature. It exists objectively, it does not yet exist subjectively, save in the form of a hypothesis. In morality the order is reversed: the ideal is not yet anywhere wholly realised as an objective fact; on the other hand there is a sense in which it may be said to be subjectively realised: the good will in the individual already contains potentially the new social order for which it works. He does not need to wait to see it realised in the objective world of fact. The Kingdom of Heaven is in a literal sense within him.

Nevertheless, the parallel is sufficiently close to illustrate the relation of mutual dependence upon one another, which I have tried

to establish between the "is" and the "ought to be." The "ought" is dependent for its form upon the "is"; the "is" is from moment to moment sustained and reconstituted by the action upon it of the "ought."

III.—By G. F. STOUT.

PROFESSOR SIDGWICK says: "It must be recognised that even in the case of our thought about what is, though error may lie in want of correspondence between Thought and Fact, it can only be shown and ascertained by showing inconsistency between Thought and Thought, i.e., precisely as error is shown in the case of our thought about what ought to be." Following the hint here given, I shall begin by asking, What is meant by the word ought, when it is said that we ought to *believe* a thing? In other words I shall treat first of the theoretical ideal, and *Truth* before proceeding to deal with the practical ideal, *Right*, or *Good*. Now, from the theoretical point of view there are two ways, and only two ways, in which a man may be brought to see that he ought not to hold this or that belief. In the first place, he may find that it is inconsistent with his other beliefs so as to violate the systematic unity of his pre-formed view of the world. In the second place, though there may not at the outset be any difficulty in fitting the belief into what we may call his intellectual preformation, nevertheless he may ultimately be constrained to reject it because in the course of further experience he acquires new beliefs with which it is irreconcilable. Here the test of truth is not mere self-consistency, but self-consistency conjoined with extension of his experience. We ought to endeavour to disbelieve whatever is irreconcilable with the systematic unity of a progressive experience, or to vary the emphasis, whatever is irreconcilable with the progressive enlargement of a unified experience. Of course, in applying this principle to convince a man that he is wrong in holding a certain view, we can only appeal to the circle of ideas which he has already acquired, or to such an enlargement of it as he may obtain by following our directions or listening to our testimony, or to our instruction.

Mutatis mutandis, the acquisition of truth and the elimination of error in our own case is possible only by a similar process. It would seem then that in the sphere of theoretical activity the distinction between what is and what ought to be is not irreducible. To say that this or that ought not to be believed, is to say that it will in the long run be irreconcilable with the systematic unity of an ever-growing experience. To say that it ought to be believed is to say that its contradictory will be similarly incapable of forming an integral part

of the ever-widening circle of ideas. But this reduction is based upon an assumption. It presupposes that men either necessarily pursue truth or that they *ought* to do so. Now in fact it is certain that men do not universally and necessarily pursue truth. "Where ignorance is bliss, 'tis folly to be wise," is a saying which expresses a point of view adopted more or less consciously by a large part of mankind. But if we say that truth *ought* to be pursued the question arises, how is this *ought* reducible to an *is*? If a satisfactory answer is to be found, it obviously can only be found by reducing the practical *ought*, as distinguished from the theoretical, to an *is*. For the primary obligation within the sphere of theoretical activity—the obligation to seek truth—is a moral obligation.

Turning from theory to practice, we easily find a formula expressing what a man ought to do corresponding to the formula expressing what a man ought to believe. A man ought to endeavour not to aim at such ends as will be found ultimately inconsistent with the systematic unity and increasing range and depth of practical interests. The meaning and justification of this formula will be best brought out by showing its application in particular cases.

Suppose that I have to do with a burglar who takes a pride in his profession and pursues it as his chief aim in life. If I wish him to be convinced that he ought not to get drunk frequently and inconsiderately, I may do so by pointing out that it leads to oversights and bungling, which spoil his career as a housebreaker. If he can be brought to see this he will condemn his own conduct in forcible language. But if I wish to produce in him equally real conviction of sin in the matter of housebreaking itself, I cannot set about in this way. The only chance of success lies in extending the circle of his interests and sympathies so that he may acquire new dominant aims with which the life of a burglar is incompatible. When I say that he ought not to rob houses I mean that the progressive development of his practical interests, conjoined with the maintenance of systematic unity of aim, would lead him to a stage at which he would condemn robbery as inconsistent with his permanently dominant ends. He means the same thing himself when, without inward conviction based on direct insight, he makes the external admission that he is doing wrong, if, indeed, he does not merely mean that he has done what is usually said to be wrong or what is illegal.

In this way it would seem that every special kind of practical obligation—including, among others, the obligation to pursue truth—may be expressed in the form of a statement of what would happen if certain conditions were realised. But here, again, we find that the reduction involves a pre-supposition. It is based on the assumption that men either do in fact universally and necessarily strive after

the systematic unity and the fullest extension of their practical interests, or that they ought to do so. The first alternative is obviously untenable. Accepting the second, our problem presents itself anew in a fresh form. How are we to express the duty of self-realisation in the sense defined as a mere proposition concerning what is, or would be, or might be? I shall not myself attempt to deal with this question, because I have not been able to discover a solution which I can regard as satisfactory. I shall, therefore, content myself with an examination of Mr. Muirhead's mode of treating the subject.

(1) Mr. Muirhead says: "While it is true that duty is prescribed by the mind, it is more important for our present purpose to observe that it is prescribed by the facts as well, and that it never could be prescribed by the mind unless it were prescribed by the facts." He then illustrates his meaning by the case of the gambler weighing *pros* and *cons* before staking his last 10,000 francs, and coming to the conclusion that it is his "duty to refrain." Now I see no reason for disputing Mr. Muirhead's contention that in such cases the "moral imperative ought not to be conceived of as something superimposed upon the facts, or setting itself in opposition to them." But it is clear that duty can be elicited from consideration of the facts only under one pre-supposition. All depends on the primary assumption that the course of action which a man ought to adopt in any given instance is that which he would adopt, if he adequately apprehended with responsive interest and sympathy all that the act and its alternatives involved in their proximate and remote influence on his own mind and circumstances and the minds and circumstances of others. But this primary principle of obligation is just what requires to be interpreted in terms of what is, or under certain conditions, would be.

(2) Mr. Muirhead goes on to say: "The 'ought' is the 'is' in the making, or the is to be; it is the 'is' of the fact conceived of as living and moving as opposed to the 'is' of the fact at 'rest.'" If this were only true it would constitute a perfectly adequate and satisfactory reduction of moral obligation to a matter of fact. But it is very difficult—though it may not, perhaps, be impossible to find an interpretation of "is to be" which will enable us to identify it with "ought to be." Mr. Muirhead certainly cannot mean that, whatever men in point of fact become or develop into, they *ipso facto* ought to become or develop into. What a thing is to be is probably identified by him with what it tends to become, and this, again, is identified with what it is fitted to become by its own proper and distinctive nature. In this sense we might say metaphorically that an acorn ought to become an oak, because otherwise it fails to

develop the capabilities which belong to it *quâ* acorn. The real as distinguished from the metaphorical "ought," is on this view to be found in the development of those capabilities which belong to the proper and distinctive nature of human beings as such, *i.e.*, the development of the unity of reason and of feeling as determined by reason amid the growing manifold of presentations and desires.

But it does not in Mr. Muirhead's statement any more than in mine get rid of an ultimate pre-supposition concerning what ought to be which remains unreduced to an "is" or a "would be." No answer is forthcoming to the question, Why ought I to realise myself in this way? The difficulty becomes accentuated when we consider that human nature as such is capable of vice and moral degradation as well as their opposites, just as living organisms are by their distinctive nature capable of death, decay, and disease, as well as of life and healthy growth. This criticism applies to Mr. Muirhead's further statement that, "Inasmuch as the real nature of anything is that which it has in it to become, rather than that which it already is, the essence of human relations (the facts of the moral world) and the society which is built out of them, is to be looked for not in man's actual achievements in these respects, but in the end or ideal to which he is progressing."

By way of illustrating the independence of "is" or "is to be," he proceeds as follows: "It is, perhaps, not an exaggeration to say the value of our family, university, estate, and cosmopolitan institutions, looked at from within, does not, strictly speaking, rest upon anything that is real at all, but upon the ideal structure of the ought." Now it is obvious that the *significance* of these institutions is constituted by their relation to the ideal structure of the "ought," but to say that their existence depends on the "ought" seems to involve some confusion of thought. As Mr. Muirhead himself tells us, their existence depends on the loyalty of men to the demand of the moral law, not on the moral law itself. But this loyalty is merely a psychological, historical, or sociological fact.

In conclusion, I may say that I am in general sympathy with Mr. Muirhead's mode of dealing with the question. I think it likely that the problem may be solved on the lines followed by him. For this reason it seems to me the more necessary to sift carefully his proposed solution.

Mr. Alexander's identification of what ought to be with what conduces to social vitality or social health fails, in my opinion, to account for the ultimate nature of "obligation." I can conceive that it might, under certain imaginable conditions, be the duty of a man to do his best to bring about the dissolution of society. If I saw that the preservation of the race entailed unavoidable and unending

preponderance of misery, degradation, and slavery over happiness, culture, and freedom of individuals, would it not be a duty, if possible, to put an end to the race instead of preserving it?

IV.—By S. ALEXANDER.

I INTEND to support that reduction of "ought" to a species of "is," "on the lines of scientific thought," which Mr. Muirhead has declared to be naïve, and Professor Sidgwick has declared to "eviscerate ethical thought of its essential import and interest." I am in hopes that these different charges may compensate each other: that the *naïveté* of my doctrine may excuse its criminality.

The practical importance of obligation has invested that idea with a vivid and almost indefeasible belief in its originality and uniqueness. There is, therefore, all the more necessity to state at once how far any attempt to explain obligation can go. Why it is that, in a case where it is said to be my duty to do anything, I should experience the characteristic feeling of obligation, I can no more explain than I can explain why I see a red object red; or feel angry when I am provoked. I can but verify the fact. All that can be expected of any account of obligation is that we should be able to verify that, when the elements contained in the analysis are present, our experience assures us that the feeling of obligation is present; and, secondly, that no essential element has been omitted. I believe that the critics of the so-called scientific or biological position expect tacitly something more. It may be added that no such explanation as reduces obligation ultimately to the level of a fact can alter either its practical importance or the *prima facie* theoretical difference which compels us to treat ethics as a distinct branch of knowledge.

I will restate very briefly the account of morality and its obligation which has been impugned. We start from the fact that people have certain desires, which are not merely impulses issuing in action but are directed upon objects consciously entertained. For this reason the object of a desire may be called an ideal object or an ideal; at any rate, all ideals are the more or less complicated objects of more or less complicated desires. Owing to the dependence of individuals in a country upon one another, but especially owing to the natural inclinations, whether springing from affection or fear, which are felt towards other persons, any object of action is a social object. A man need never take into account the abstract conception of the good of society as a whole, but he takes into

account, in his actions, their relation to other persons; or more properly any of his objects involves a relation to other persons. Now everyone who acts for conscious objects acts for ideals; but, as a matter of fact, only certain of such ideals are considered good. These constitute the system of good conduct, and the persons who practice them are called good. Other ideals are called by these persons bad. These good persons, so far as they are good, approve good actions and disapprove bad ones. Good conduct, conduct which it is a duty to perform, corresponds therefore to the existence of certain sentiments on the part of good men, which dispose them towards such objects. Where then is obligation? This again is a feeling entertained by good persons, in so far as they are good. It arises from the fact that any particular action is called for by the whole society of which the agent is a member, or by the whole mass of his other sentiments. It includes the approbation passed upon a proposed course of good conduct, or of disapprobation passed upon a proposed course of bad conduct, but it contains something more, namely, the compulsion which the mass of "active" sentiments (whether as felt by the individual himself or by other members of society) exerts to enforce the doing of the good act. In the case of gambling the obligation to refrain arises from the power which the whole character possesses to repress the proposal to gamble. Obligation is therefore felt only so far as a man is good; the bad man is open only to the compulsion of fear, and his conviction of duty is limited to the theoretical knowledge that the people called good require the performance of certain acts. The compulsion contained in obligation (though it may have been generated in a man by external constraint) arises from his other moral sentiments. Obligation is, therefore, approval backed by the force of the whole character.

The criterion of morality is described as social health, or equilibrium, or adaptation to the surroundings. The evidence on behalf of this criterion need not be presented. But, so far as valid, the criterion states the fact that all action called good is such as implies an equilibrium of persons in society or of desires in an individual's mind. It asserts that morality is the compromise which arises out of the attempt to give free play to every person in society or every function in the individual. It does not assert that good action is predetermined by the idea of equilibrium, but that when people act their conduct tends to an equilibrium, and that such conduct is called moral. It is therefore a comprehensive description of the sum total of good conduct by its most characteristic feature. This criterion differs from that of maximum happiness in that it claims to be a primary description of moral conduct. Given the equilibrium, maximum happiness is included.

So much for the criterion of moral action. The total object of moral action is the conduct described by the criterion. On the other hand, the reason why moral conduct becomes the regular rule is found in a process identical in principle with natural selection, in virtue of which the sentiments of "good" persons impose themselves upon the whole society. They do so because the ideal which corresponds to these sentiments affords a *modus vivendi* for all. This gives them their strength and secures their preponderance. Their general acceptance proves that satisfaction is found in them. Good persons succeed, not because they are good, but because they desire certain objects which commend themselves to the majority. That they do desire these objects, whereas others desire different objects, is a purely natural fact—a difference of tastes. That they succeed is another natural fact. Their victory settles what that ideal of goodness is which subsequent reflection discovers to be an equilibrium of interests. It is a victory enforced by censure and punishment of recalcitrants, by remorse when they themselves fail. It arises in natural superiority and is maintained by pains and penalties. The imposition of good conduct is the most flagrant instance extant of the tyranny of the majority.

Let me now turn to the objections raised. Professor Sidgwick objects that this account of moral judgment, as the expression of sentiments directed towards particular actions, does not explain why some such judgments are true and others false; or why, when two such judgments conflict, one must be erroneous. I will take the latter part first, because the former part is answered *prima facie* by referring either to the existence of the criterion or to the process by which the criterion is established. As to the second, Professor Sidgwick urges that "one psychological fact cannot conflict with another fact; A's judgment that all gambling is wrong does not conflict with B's judgment that some gambling is right." This is perfectly true so long as A's and B's judgments are regarded as parts of the knowledge of the observing moralist. There is no inconsistency in the existence of these two judgments, because they can be explained by reference to the characters of the different persons. But A's and B's judgments, as they exist in A's and B's minds, are not equivalent to the knowledge in the moralist's mind that they do so judge. A body is pulled in contrary directions by two forces, one of ten the other of twenty pounds. There is no conflict between these facts; but you might as well say that there is no conflict between these forces as maintain that there is no conflict between A's and B's judgments. Whether all mental events are actions I will not ask; but, at any rate, these judgments are judgments about action and issue in action. A's and B's sentiments are forces which do conflict, and in two ways: (1) B's

judgment, if acted upon, leads to consequences which may directly or indirectly be harmful to A; (2) the idea of B's gambling shocks A's sentiments, which operate against gambling, and causes him displeasure. What we mean, in fact, when we say that B's judgment is erroneous, is that it is disapproved by that exclusive society for mutual admiration called good men, against whom the miserable wicked have no defence. Mr. Sidgwick himself points out how, when we inquire into the ground we have for knowing the existence of error, we are driven upon the inconsistency of thought with thought, because the inconsistency of thought and things can only be judged by reference to the thoughts in which we know the things. Why should he then object to the view that badness consists not in the inconsistency of an act with some standard of "duty" which is different from the mere sentiments of a certain class of persons, but in its inconsistency with the mass of sentiments directed towards objects which have arrogated to themselves the title of right?

Mr. Sidgwick goes on to say that, while a reference to the end (as social health or equilibrium) may account for why one judgment is right and another wrong, this test can be applied only on the assumption of the ethical judgment that health or equilibrium is itself valuable. This objection is, of course, equally valid against any other account of the end, like maximum happiness, which does not appeal to some ultimate intuition for its obligatory character. I find it difficult to follow the criticism, because health and equilibrium both describe nothing but a certain distribution of activities in the body, whether the body material or the body moral; and this distribution if attained is nothing but an event. But the criticism appears to admit of either of two interpretations, both of which are fallacious:—

(1) It may mean, granting equilibrium to be the end of good action, why ought this end to be pursued? Now the end so described, or however described, is nothing but the sum of such actions as ought to be pursued. To the end, as a whole, "ought" is inapplicable. Obligation applies to any particular action in relation to the end. To ask for the obligation to the end is to ask for the explanation of a tautology. The end represents the sentiments of good men; the obligation to it is the compulsion exercised by these sentiments as a whole upon any particular sentiment which aims at any one part of the end. In other words, obligation is an internal relation between the parts of the end, not a relation external to the end. The only intelligible answer to the question, why I ought to promote equilibrium, is to be found in the process by which the equilibrium is established, for that equilibrium constitutes at once the distinction of right from wrong and the obligation to do particular acts.

We can question the value of the equilibrium as a whole only when we are dissatisfied with it; this must be on the ground that it does not satisfy our desires, or, in other words, falls short of some new equilibrium which we desire to establish.

(2) If the criticism does not mean this, it means that we cannot act for the sake of social health or equilibrium without first asking why it is right to seek the equilibrium. But the idea of equilibrium is a theory; it is not the object of practice. In practice we desire particular objects, and if we think of the whole of the moral system as an end, we think of the mass of actions comprehended under it. We may upon occasion think of the equilibrium as our ideal, in the same way as we may think of maximum happiness; and doubtless we do so in many cases. But we do so because we have assured ourselves that this is the true criterion of any action, and therefore can be made legitimately our direct object. The objection, in fact, seems to me to confuse the characteristic of the moral end, as viewed by the moralist, with the motives of the agents who pursue it. Whether we act up to a social end already determined, or being dissatisfied with this, endeavour to introduce a new mode of life, in neither case do we, as a general rule, act for the sake of the equilibrium which is characteristic of the standard. We act because we desire certain objects. If these objects are imposed by the existing standard they are approved. If they are acts which modify the existing standard they can only be approved by reference to the new standard of which the reformer has a forecast. The only use of entertaining the idea of social health or maximum happiness is to direct our action wisely to those objects which have the characteristics which experience and reflection have convinced us are proper to any end ever proposed as moral, in the same way as we consciously apply approved science in order to abridge the record of guesses and failures which would be the result if we followed our immediate fancies.

Mr. Stout's objection to the biological view of morality, that it does not account for the ultimate nature of obligation, is put in a different way. We ought, he urges, under certain imaginable conditions, to hold it our duty to bring about the dissolution of society, if the preservation of the race meant more misery than happiness, or meant degradation, such as I suppose might happen if, owing to great climatic changes, we had to adopt a simpler mode of life. I confess I find great difficulty in meeting this consideration. I have said that we should be content with that explanation of obligation which we can verify by reference to our experience, provided no essential element is omitted. And am I to conclude that an essential element has been omitted on the strength of the obligation which would problematically be felt under circumstances as problematical? The objection is valid not-

only against the criterion of utility, but against any other criterion whatever which can be adopted in the face of data which are certain. It is no more absurd to be bound to secure a moral vitality which consists in extinction, than a greatest happiness which cannot be felt. Even if obligation is something *sui generis*, it is, as Mr. Stout would admit, not independent of circumstances, and affects individuals who will enjoy the performance of the conduct. No other idea of obligation would be consistent with the every-day facts of morality. I do not feel, therefore, that the puzzle falls specially to me to consider. But I will make some remarks upon it. In the first place, not only is it conceivable, but it really happens, that duty should require the destruction of any particular society or portion of society, or of the form which society takes at any particular time. But this would be our duty only in view of the health of some other larger or different society to which the continuance of the society in question, at any rate in its present form, is hostile. "That man's the best conservative who lops the mouldered branch away." Excluding this case, which accords with the doctrine I support, let me remark how extremely problematical it is whether in the cases Mr. Stout imagines any obligation would be felt at all to destroy the society. Perhaps some individuals might feel such an object their duty. But mistaken ideas of duty are possible under any circumstances. I imagine, however, that persons might help on the dissolution of society not from any sense of obligation, but from fear of the future. Does a suicide take his life from a sense of duty or because he has no courage to continue living? And the whole of existence might destroy itself from sheer weariness without feeling any obligation to do so. Not even if universal suicide (and nothing short of this would be to the point) took place by deliberate agreement, would there be the elements of obligation present as I have defined obligation, even though the act would be approved by the whole race? For the approbation which I have described is meaningless if the action approved is to have no effect on the character of anyone at all. Finally, even if obligation were present, the annihilation which follows the act is as much an attainment of equilibrium as it is of happiness or consciousness of duty. But if we turn from these somewhat vain discussions to the guidance of actual experience we find that any excess of pain over pleasure is not an incentive to destruction, but to removing the source of pain, and that when for any reason men's condition becomes simpler or degraded they adapt themselves to the new state, like fishes, which, having to live in the dark, live on, but lose their sight. Moreover, the theory itself throws light upon the circumstances imagined. For it shows that people do not first consider whether actions, which will secure moral equilibrium, will

elevate or degrade character, but, acting for the objects they desire, they secure with it equilibrium and in general elevation, though possibly, in some cases, degeneration. And as to the case imagined when misery exceeds happiness, though it is easy to assert this, it is impossible ever to prove it, and the theory I am supporting, by using the fact that life-preserving acts are pleasurable, maintains that morality produces an excess of happiness if only for the *a priori* reason that morality is the rule of conduct which survives. It secures excess of happiness because those whose feelings would turn the scale in favour of misery, that is to say, who cannot find their place in the social equilibrium, are extirpated.

Mr. Stout explains in a manner with which I am in full agreement, how both truth and goodness imply the self-consistency of their parts. This is nothing more nor less than is implied with respect to conduct in the idea of equilibrium. But he goes on unaccountably to declare that in both cases the reduction of truth and goodness to a fact depends on two assumptions—(1) that all men necessarily pursue truth and goodness, (2) that truth and goodness are worth pursuing. Neither of these assumptions seems to me to be made in fact. The determination of what is called a body of truth as opposed to falsehood, merely implies that truth is that body of knowledge which succeeds in commending itself, and stigmatising other knowledge as false. The theory assumes only that people strive to understand or even merely to apprehend the world with which they are brought into contact, without asserting that they pursue truth as such in any sense. If so much be not granted, if men do not according to their lights seek to understand, the constitution of truth and the recognition of its claim would be unintelligible. As any theory of goodness takes for granted the fact that persons desire objects, so any theory of truth takes for granted that persons apprehend objects. The second supposed postulate has no existence whatever. Truth arises out of the conflict of the various apprehensions of objects, as goodness out of the conflict of desires. The value of truth and goodness is the result of the process which distinguishes true from false and good from bad. The men who seek knowledge, or who seek goodness, need never think of the value of that consistency of apprehension or of desires which constitutes truth and goodness. Or if they do so it is only because they import with their operations an idea which they have derived from reflection on the general character of the process on which they are engaged.

On Mr. Muirhead's paper I have only a few short remarks to make. So far as he maintains that "ought" is in close connection with the facts of life, arises out of them and again passes into them, I am, of course, in agreement with him. The desires whose equi-

brium constitutes morality are desires which are determined by the conditions in which persons have to act. So far as Mr. Muirhead goes beyond this, I am unable to think that his demonstration of how the ought reacts upon the "is," helps us in the solution of the problem before us, and when he goes on to declare the "is" to be dependent on the "ought" because this "ought" represents the real nature of human action, and perhaps of science, he is, I think, committing the error of confusing the order of fact, of nature which always proceeds by efficient causation, with the order of significance. The ideal may be more significant than the fact, but in so far as the ideal works, it works only as a fact—as an idea in the mind of the person who possesses the ideal.

A GENERAL ANALYSIS OF PRESENTATIONS AS A PREPARATORY TO THE THEORY OF THEIR INTER-ACTION.

By G. F. STOUT.

The distinctive aim of Psychology is the investigation of the laws of mental process and the stages of mental development. Its characteristic problems are problems of genesis, not analysis. But analysis, though it is not for the psychologist an end in itself, is indispensable as a means. From this point of view there is at least a twofold need for it. In the first place, in order to give a satisfactory account of the processes which result in a certain product, we must first ascertain what the nature of the product is which we seek to trace to its origin. For example, it is futile to enter upon an investigation of the genesis of the space-perception without first considering the previous question, What are the essential characteristics of space as it actually is perceived? In the second place, if we are to show how a given result arises from the co-operation of given factors, we must first examine the nature of these factors. For example, if we are to exhibit the part played by motor process in the growth of the space-perception, we must first determine what a motor process is. In like manner it is a necessary initial step in psychological procedure to submit to a searching analysis those ultimate co-efficients of mental process, which must be assumed to exist from the very outset of mental evolution, because they do not admit of generic derivation, but at the most of definition or description. It is the purpose of this paper to consider presentations

from this point of view, giving such analysis of their nature as may best prepare the way for an inquiry into the forms and laws of their interaction.

I. *Definition of a Presentation.*

What is a presentation as distinguished from feeling, from desire, and from motor or cognitive activity. Considered merely as a co-efficient in mental operations, a presentation may perhaps be sufficiently defined as that which is capable of being retained, reproduced and associated. But for our purpose we require some distinguishing peculiarity which shall mark off presentations as contents of consciousness from other contents of consciousness and from modes of being conscious which are not contents of consciousness—if such modes there be. Now, from this point of view, there seems to me to be only one characteristic which is at once necessary and sufficient as a defining mark. A presentation as it immediately exists for consciousness is either a whole composed of distinguishable and interrelated parts, or at the least it is a component of such a whole. Of course the term whole is here used in the widest possible sense as signifying any mode, however vague, in which differences are synthesised. Presentations, as thus defined, are the appearances in consciousness of the unrepresented immanent objects of the subjective activity of attention. The subject concentrating attention distinguishes or makes more easily distinguishable the different components of a mental complex, and by the same act becomes aware of their mode of combination.

It is otherwise with feeling, and with activity itself motor or cognitive. A pure feeling of pleasure or pain may exist in any degree of intensity, without our discriminating different parts or components within it, or becoming aware of it as itself entering into the composition of a totality of different and interrelated elements. The same holds good in the case of the mind's activity as such. I here refer only to feeling and activity as they exist, not to ideas of feeling or ideas of activity. Such ideas are presentations in the sense defined. But an idea* of a feeling is no more a feeling than an idea of a cannon ball is a cannon ball. I am aware that I am here touching on the profoundest difficulties of theory of knowledge. It does not form part of my present task to discuss them from an epistemological standpoint. A reference to the obvious facts apart from any attempt to explain them is enough to bring out my

* The word idea is preferable to presentation or even representation when we wish to take into account not merely what immediately appears in consciousness, but also the thought-reference of the appearance to a reality, which either is not in consciousness at all, or if it be so, is not a presentation in the sense above defined.

meaning. We must now pass on to a psychological problem which arises naturally out of the preceding account of the nature of a presentation.

2. *Relative Independence of the Form of Combination on the one hand and the Elements combined on the other.*

Every whole involves (1) component parts, and (2) the form of combination in which these parts are united. The nature of the components may vary in different cases and so may their mode of grouping.

We may call the one kind of variation formal, and the other material. We have now to consider the question, How far in the case of presented wholes is formal variation independent of material, and *vice versa*, or in other words, how far is the manner of combination of a presented content distinct from and independent of the partial presentations combined? This is an important problem to the psychologist for at least two reasons. In the first place, it prepares the way for the investigation of the relative independence of form and matter as factors in the mental processes of association, reproduction, fusion, conflict, and so forth. In the second place, it has an essential bearing on the question, how far the constructive activity of the mind can properly be said to be creative as well as merely constructive. For if a new form of combination be really a new and relatively independent content of presentation, the mind in producing it may properly be said, in the words of Locke, to make for itself a new simple idea—simple, that is, in the only relevant sense.

The general problem resolves itself on examination into a series of distinct problems which require separate treatment. Thus, we may ask—

- (a) Can the form of combination remain the same while the constituents vary?
- (b) Can the same constituents be variously combined so as to form different wholes?
- (c) Is it possible to apprehend all the components of a whole without apprehending their mode of connection?

It is not difficult to show that question (a) must be answered in the affirmative. The same form of combination admits of transference to different sets of components. We must, however, be careful to distinguish two kinds of transference, only one of which is really relevant. The transferability of a form of connexion may depend on its own abstract generality. For example, the term

"closed figure" implies an abstract and general manner of combination, which receives specific determination in the various kinds of closed figures—triangle, ellipse, polygon, &c. The specialised forms of connexion require a corresponding specification of the nature of the parts connected. Thus the constituent parts of a circle cannot be identical with those of a triangle. The abstract and general form, closed figure, is transferable to these various groups of components. But in each the general form itself, *quâ* form, receives specific modification. In other words, so far as the transferability of the form depends on its generality, it varies concomitantly with the matter. Such cases of transference have no bearing on the question before us. But it is easy to point out abundance of instances in which the constituents of a total presentation may vary without any corresponding variation in their mode of grouping. Even though every single note of a melody is changed, it may yet remain as a whole the same melody if the intervals between the notes and the order of these intervals and the rhythm remain unchanged. A metrical arrangement of syllables may remain the same although the syllables themselves are exchanged for others. Music and dancing may have an identical rhythm. The shape of the letter S may remain identically the same whether it is painted in gold on a green ground or in black on a white ground. Similar triangles have their sides combined in exactly the same manner. The well-known case of Couching for congenital cataract, reported by Dr. Franz, supplies evidence strongly pointing to the identity of visible figures with the corresponding tangible figures. The form of a mathematical progression may remain the same, though the absolute values of its terms are changed. In such instances the conditions of community of form amid diversity of matter are:—

(1) That the components of the different wholes which agree in having the same form shall also agree in having a certain generic nature. A melody can be composed only of tones; it cannot be composed of mere noises or of colours or of smells. But this common nature, which alone renders various matters susceptible of the same form, may be highly abstract and general; and the more abstract and general it is the wider is the range within which the form is applicable. Quantity and rhythm are cases in point. The regular recurrence at fixed intervals in which rhythm consists would seem to be possible for every kind of presentation, including organic sensations. The nature of extensive quantity will be discussed in another place. The most important point to bear in mind in this connexion is that the abstract indeterminateness of the common character, through which various matters are

susceptible of the same form, involves no corresponding indeterminateness in the form itself, which may indeed be perfectly definite.

(2) The common nature, which we may call the material basis of combination, must receive specification in every particular instance of the union of matter and form. This specification, so far as it really affects the material basis as such, and not extrinsic circumstances, is dependent on a mutual adaptation or adjustment of the special character of each component to the special characters of the rest. Thus in a melody of a given form, if the absolute pitch of some of the notes is given, the pitch of the other notes is thereby determined. Similarly, by fixing the value of any term of a mathematical progression we fix the value of the rest. The same rhythm may be found in a series of sounds and in a series of movements, but if the series begin as a sound series it must be continued as such.

The general answer to question (a) is that the form of a presented whole may remain the same while the partial presentations vary; further, the variation is of such a nature as to exhibit the relative distinctness and independence of the form of composition on the one hand, and some of the components on the other.

Question (b) need not delay us long. It is obvious that some partial presentations may appear in formally different wholes. The same note may be part of different melodies; it may enter into harmonic as well as into melodic combinations. The same straight line may be part of a square or of a triangle. Nor is this all. The same numerical collection of components may be differently combined. This is so in every instance of change in the order of arrangement of the terms of a series, apart from change in the terms themselves. The most notable cases are those in which the order is merely reversed or inverted. Thus the direct path of transition from one position in space, A, to another, B, includes exactly the same intermediate positions as the direct path of transition from B to A. In such instances there is not merely identity of matter but a close affinity of form. This formal affinity, however, serves only to bring into greater distinctness the formal difference, and the reason is, that it just consists of a systematic identity of the plan according to which the two series differ. I here content myself with merely indicating this point. In the treatment of so-called association by contrast it will prove to be of fundamental importance.

Question (c) must also receive an affirmative answer. It is one thing to apprehend simultaneously the parts of a whole; it is another thing to apprehend the plan of their union. Of course, whatever presentations are simultaneously attended to constitute some kind of

presented totality. But the form of connexion which is actually presented need not be the only form of connexion in which the partial presentations are combined. According to Stumpf, we may be aware of two notes differing in pitch, and we may be aware that they do so differ without observing which is higher than the other. I may be familiar with the appearance of the leaves of a tree without noticing the principle of their arrangement. I may grasp separately the meaning of each sentence of a philosophical essay without grasping its general drift.

Even the most attentive scrutiny may fail to discern a plan of combination, either because the whole is too complicated or because it belongs to an unfamiliar type. A special difficulty arises where the parts of one whole A are included in another B, though A itself is no part of B. A good example is supplied by the well-known puzzle pictures or Vexirbilder. In these a certain group of objects is depicted, and we are called upon to discover within the picture a new figure not included in this group. This can only be done by disengaging its several components from their obvious connexions in the original drawing. When by a series of tentative efforts we have succeeded in gathering together the *dissecta membra* so as to concentrate attention on them separately, the plan of interconnexion immediately emerges into clear consciousness and we wonder how we could ever have missed it. The work of the mind in such cases is comparable to that of the sculptor who brings to light the form of a statue by removing with his chisel the irrelevant matter by which it is overlaid and concealed. We have now discussed the three questions above formulated, and the result of our discussion constitutes, as I venture to think, a conclusive proof of the relative independence of presented form of combination on the one hand and matter combined on the other.

Relations.—I have hitherto purposely avoided the use of the term *relation*, because I do not regard it as a synonym for such expressions as form of combination, mode of synthesis, &c. A form of combination may perhaps be said to include or comprehend the components of a whole; but it cannot be legitimately spoken of as being between them. But relations are between the terms related. The unity of the whole as such lies in the form of combination; but relations are of part to part within the whole. The form of union may be apprehended when all or nearly all of the partial presentations are below the threshold of distinct consciousness. At the most only the last two or three tones of a melody are distinctly presented at its close, but those who are musically gifted apprehend it as a whole. So I may be vividly conscious of the metrical form of a sonnet in reading the last line when preceding words have dropped out of my conscious-

ness, and similar examples might be multiplied without end. But in order to apprehend a relation, we must definitely discriminate the terms related, and conversely, the more clearly and fully we discriminate parts within a whole the more relations do we become aware of between them. To analyse a presented totality and to discern the relations of its components are two sides of the same process. Now, if the consciousness of relation depends on definite discrimination of the terms related, and if consciousness of a form of synthesis is possible when the components are undiscriminated, relation and form of combination cannot be legitimately identified. It may, however, be suggested that this distinction is after all only a distinction between relations clearly presented and relations obscurely or subconsciously presented. It may be urged that a sufficiently keen and comprehensive analysis would exhibit every form of combination as consisting in nothing but a sum of relations. This view has a *prima facie* plausibility, and in some instances it may perhaps be true. But in others it is certainly untenable. The fallacy of it is most obvious in the case of continuous wholes. In a continuum every assignable finite part P is capable of further subdivision into parts which are components of the whole in the same sense in which P itself is so. The form of such a whole cannot be exhaustively analysed into a collection of relations, because there is no definite group of ultimate points of attachment for the relations. By way of illustration we may take a curve in space considered as made up of the section into which it may be divided.

It is otherwise when the ingredients of a presented whole consist in a fixed number of partial presentations capable of being definitely discriminated and incapable of subdivision. Thus when two objects A and B are presented as like or unlike in quality, or as equal or unequal in quality, the distinction between relation and form of union seems to vanish. It certainly is not recognised in ordinary language. But even in cases like these I am disposed to maintain the validity of the distinction. Between two terms there are always two relations: the relation of purple to violet is other than that of violet to purple; the relation of the greater to the less is other than that of the less to the greater. May we then affirm that the form of combination of the whole A B is equivalent to the relation of A to B plus the relation of B to A. I think not. It is true that these relations, and it may be these only, are united in the form of the presented whole. But the union is not for consciousness a mere addition. It is rather what Kant calls a "synthetical unity of the manifold," a unity which is logically prior to all the relations between its terms discoverable by analytic attention.

Extensive Quantity.—Every whole composed of distinguishable

parts is as such an extensive quantum. Extensive quantity is that form of combination which presupposes in its material constituents no generic qualification except that they shall be so far mutually distinct and so far mutually akin as to be capable of entering into the composition of some kind of whole. Of course here as elsewhere the general principle holds good that, when once the material basis of union receives specification in any of the components, the specific nature of the rest is correspondingly determined. In other words, the parts of any extensive quantum must belong to the same denomination, *i.e.*, they must differ from each other only in certain respects.

The distinction between continuous and discrete quantity has already been treated by implication in the preceding section. Any whole which can be adequately expressed as the union of a certain determinate group of component relations is a discrete quantum. Any whole which cannot be so expressed, because it contains no ultimate units of composition, is continuous quantum.

Intensive Quantity.—Extensive and intensive quantity have only one characteristic in common. The category of more and less applies to both. Extensive quantity is a more or less of the different *quâ* different; intensive quantity is a more or less of the same *quâ* same. An intensive quantum being by definition a quantum of identically the same quality can contain within it no demarcation of part from part. It is a whole, but not for consciousness a divisible whole. It is without discernible parts, though not without magnitude. Hence intensive quanta cannot be superposed or measured like extensive quanta.

It is not surprising that writers with a mathematical bias should regard with suspicion the whole conception of intensive magnitude, and that they should be anxious to explain it away. All such attempts, however, seem to fly in the face of obvious facts. The comparatives sweeter, colder, hotter, louder, brighter, signify not qualitative alteration, but quantitative increase of the same quality. It is argued that this is a mere illusion to be accounted for as follows : (1) The presentation which is said to increase or decrease in intensity passes through a series of changes in quantity. (2) These are accompanied, preceded, or followed by a progressive increase or decrease of some extensive quantity, such as that of the physical stimulus or of the diffusion and duration of muscular sensations. (3) The graduated series of qualitative variations is confused with the conjoint series of quantitative changes. (4) The quantitative change comes to be ascribed to the sensible quality itself. (5) It is seen that the sensible quality is not as such an extensive quantum. (6) It is, therefore, regarded as possessing another kind of magnitude, called intensive.

This account of the matter may look plausible, but it breaks down on examination. It has not even an apparent application to a series which is constituted by graduated differences in the relative intensity of two or more components of a complex quality. Thus, in the transition from blue to green through the intermediate blue-greens and green-blues, there need be no series of qualitative changes distinct from the intensive variations. If it is maintained that what we find in such a series is not differences in the relative intensity of green and blue, but only different degrees of resemblance in a group of simple qualities, I reply that degrees of resemblance between simple qualities must be intensive magnitudes.

Some instances, at least, of increase in absolute intensity are equally difficult to explain away. No doubt a sweeter taste often, if not always, differs somewhat in quality as well as in degree from a less sweet taste. But the difference in the degree of sweetness is easily distinguishable from the qualitative variation which may happen to accompany it. As for any concomitant series of presented gradations of extensive quantity, I do not know where it is to be found. A little bit of saccharine is sweeter than a big bit of sugar, and there does not seem to be any cogent reason for assuming an increase in the extent and duration of muscular reaction closely corresponding to the increase of sweetness.

Assuming, then, that such a thing as intensive magnitude really does, in fact, exist, we shall now turn to the consideration of a distinction which seems to me to be very important—the distinction between objective and subjective intensity.

Objective and Subjective Intensity.—Objective intensity belongs to a presentation as an integral part of its content, and is, therefore, inseparable from it on all the occasions of its recurrence in consciousness, so far as it is accurately reproduced. Subjective intensity, on the other hand, belongs to mental states, processes, or activities at the time of their occurrence. In so far as these are not immediate objects of attention their intensity is not so.

But what I wish to lay special stress upon is that presentations themselves have both an objective and a subjective intensity, the first belonging to them as objects of attention, the second belonging to them as psychological occurrences. This is best shown by a comparison of impression and image. An impression at the time of its occurrence derives from the immediate operation of the physical stimulus a subjective intensity by which it breaks in upon the internal flow of ideas like an independent force, and by which it has power to produce pleasure and pain such as does not usually belong to the corresponding image. The corresponding image, also, has a subjective intensity of its own. But this is ordinarily much more feeble, arising, as it

does, purely from the working of the association of ideas and from the concentration of attention as determined by interest. Suppose I look at a very bright light. Afterwards I call to mind the image of it, and at the same time look at another light which, though not dim, is less brilliant. The impressions produced both by the very bright light and by the fainter one have as impressions more subjective intensity than the image. But the intensity which forms part of the objective content of the image as an immediate object of consciousness is greater than that which belongs to the impression of the dimmer light.

The distinction here laid down does not seem to be recognised by Dr. Ward. In his article in *Psychology*, page 42, he contradistinguishes objective intensity on the one hand and subjective attention on the other. But what he calls objective intensity is, in my view, purely subjective. It is the intensity which belongs to an impression as a mental event conditioned by a physical stimulus. The question which he raises as to the possibility of increasing the intensity of an impression by concentrating attention on it, has meaning only in relation to subjective intensity. To increase the objective intensity of a presentation would be to transform it into a different presentation.

Ultimate Nature of Resemblance.—We are now in a position to take up a much disputed question which clearly requires to be discussed in a general analysis of the nature of presentations. I allude to the problem of the relation of similarity to identity. Many cases of resemblance can be traced to the presence of identical constituents in complex presentations. So long as we fail to concentrate attention separately on these identical constituents so as to definitely discriminate them from the points of difference, we have merely a general consciousness of similarity. But when we have once isolated the exact points of agreement, this general consciousness of similarity disappears and we become aware only of identity and of difference as such. Now there are cases of resemblance in which we find it impossible to separate identical from disparate characters, either by an effort of attention or otherwise. The question before us is, Are we to lay stress on the analogy of those instances in which analysis is possible, and regard it as at least a probable presumption that what to us is an unanalysable resemblance, is such by reason of shortcomings in our power of discernment, not by reason of the intrinsic nature of the presentations compared? Is resemblance always masked identity, or is it, in some cases, an elementary and irreducible relation?

Lotze, Stumpf, Meinong, and James deny that the resemblances between sensible qualities belonging to the same class, *e.g.*, between

different colours, different sounds, or different smells, can be resolved into partial identity. The question which they raise needs to be considered from a different point of view in connection with the interaction of presentation, and it cannot be adequately determined by a merely analytic procedure. Those who maintain the existence of irreducible resemblance, also maintain for the most part that such resemblance is not and cannot be a ground of interaction. I believe that they are right on this point. But I also believe that what they call irreducible resemblance is a ground of interaction, and, therefore, cannot be really irreducible. I mention this issue merely to exclude it from the present discussion. We have here to discuss the reasons urged by the advocates of irreducible resemblance from a purely analytic standpoint. I hope to show that these reasons lack cogency. I do not, however, here propose to give positive proof of the opposite view. James quotes with strong approval the following passage from Stumpf: "When we compare a low, a middle, and a high note . . . we remark immediately that the first is less like the third than the second is. . . . But where here is the identical and where the non-identical part? We cannot think of the overtones, for the notes may have none in common. . . . Neither can it be said that the identity consists in their all being sounds and not a sound, a smell, and a colour respectively. For this identical attribute comes to each of them in equal measure, whereas the first being less like the third than the second, ought on the terms of the theory we are criticising to have less of the identical quality. It thus appears impracticable to define all possible cases of likeness as partial identity plus partial disparity; and it is vain to seek in all cases for identical elements." This passage contains the pith of the argument in favour of irreducible resemblance. Those who affirm the existence of an identical component are called upon to exhibit it apart from the differences with which it is united, and their inability to take up this challenge is regarded as a proof that no identical component exists. But the assumption that every ingredient of a psychological compound can be isolated is altogether unwarranted. The existence of such an ingredient may be inferred on other grounds, even though we have no means of disengaging it from the combination in which it is contained. In order to disengage it, it would be necessary either to isolate it in space of time or to concentrate attention on it by a separate movement of fixation. In the case of notes of different pitch both these alternatives are impossible. But in some admitted instances of partial identity they appear almost equally inapplicable. Stumpf expressly refers to analogy, *i.e.*, similarly based on like relation, as coming under this head. Now the remote analogical resemblances which suggest poetic metaphors are very often

extremely hard to dissect. We know that there is a similarity, but we cannot tell where it lies. Professor James himself supplies a good example: "If I hear a friend describe a certain family as having blotting-paper voices, the image, though immediately felt to be apposite, baffles the utmost powers of analysis." Again, it is noteworthy that James denies with boldness and emphasis the possibility of analysing sensations of smell or taste into compound sensations. If I smell a mixture of cinnamon and ginger, I have, according to him, a new simple smell which resembles that of cinnamon and that of ginger; but no effort of analysis can discriminate these smells within it as components. Now certain experiments, on which I have been engaged for some time past, seem to show that when we are once familiar with the smells of the separate ingredients of such a compound, we can detect them in the smell of the compound merely by fixing attention on it without a series of acts of comparison. Professor James might account for this result without surrendering his theory of the unanalysable nature of resemblance between sensible qualities of the same class, if he were willing to give up his other, and, as I think, better-founded theory of the non-existence of reproduction based on mere resemblance. Otherwise he is clearly chargeable with having confidently adduced as examples of irreducible resemblance a class of cases, which on careful examination turn out to be examples of partial identity. What security is there that he is not making a similar mistake in other instances? Further, it is by no means always impossible to produce separately the identical constituents of similar sensible qualities belonging to the same class or continuum. In the case of smells it may require systematic experiments to show this. But in the case of such a series as that of the compounds of blue and green, I am at a loss to discover even an apparent plausibility in the contention of Professor James and those who hold with him. The difference between one blue-green, or green-blue, and another depends on the varying intensive ratio in which the ingredients, blue and green, are combined. If we are called on to exhibit separately the qualitative components of any blue-green, we have only to point to a pure blue and a pure green. If we compare the blue-green with blue and with green it is seen to be blue united with green. The union is of such a nature that we cannot, by a direct act of concentration, fix attention on the green without also fixing it on the blue, and *vice versâ*. But this does not prove that the blue-green is not a composite quality having blue and green for its components. I find great difficulty in discussing gradation of pitch, because of my utter ignorance and incapacity in all that relates to music. For me, the musical scale can hardly be said to exist. I can see that there is a marked difference

of quality between a very high note and a very low one. But in general I am unable to tell which notes are higher than others and which are intermediate. In the plenitude of my ignorance I feel well disposed to Munsterberg's view, that the serial gradations from low to high are really gradations of the series of muscular sensations accompanying the vocal utterance of the different notes.

But accepting the orthodox view, as I understand it, I should say that the reason why the pitch-gradations of the musical scale cannot be analysed in the same way as the blue-green series, is to be found in the impossibility of isolating the ultimate components, which by combining in varying ratios produce differences of pitch. There is no such thing as a pure highness or a pure lowness. But this does not prove that the resemblance of one note to another adjacent to it in the scale, is by its own intrinsic nature irreducible to partial identity. The resemblance between notes of different pitch does not appear to be disparate in kind from the resemblance of different colours, except in respect of our power to trace and define it by analysis. Indeed, any similarity which we merely omit to analyse through inattentiveness, has for us the same kind of indefiniteness as a similarity which defies analysis because we cannot disengage its components for separate consideration.

Stumpf and Meinong endeavour to refute the theory of partial identity by a *reductio ad absurdum*. Stumpf's argument is endorsed by James, who translates as follows the relevant passage, which he calls "an extremely acute and conclusive paragraph." "We may generalise: wherever a number of sensible impressions are apprehended as a series, there in the last instance must perceptions of simple likeness be found. Proof: Assume that all the terms of a series, *e.g.*, the qualities of tone *c, d, e, f, g*, have something in common,—no matter what it is, call it *x*; then I say that the differing parts of each of these terms must not only be differently constituted in each, but must themselves form a series, whose existence is the ground for apprehending the original terms in serial form. We thus get, instead of the original series *a, b, c, d, e, f*, the equivalent series *a₁, b₁, c₁, . . . &c.* What is gained? The question immediately arises: How is *a₁, b₁, c₁*, known as a series? According to the theory, these elements must themselves be made up of a part common to all, and of parts differing in each, which latter parts form a new series, and so on, *ad infinitum*, which is absurd." This argument seems to me so destitute of even apparent cogency, that I am compelled to doubt whether I rightly understand it or not. It obviously has no application to a series formed by the composition of the same pair of qualities in varying proportions, *e.g.*, the gradations of blue-greens and green-blues, through which pure blue passes

into pure green. But is it certain that the gradations of highness and lowness are differently constituted? It assumes without discussion that every qualitative series may be symbolically formulated as a_1, b_1, c_1 . But no evidence is produced that actual series necessarily present this form. How would the proposed *reductio ad absurdum* apply to the progression $x, xa, xab, xabc$, &c? Above all, why should a *regressus ad infinitum* be an absurdity in such cases? Infinite divisibility may be a puzzling thing. But wherever we have to deal with continua we find it to be an undeniable fact. The argument of Stumpf recalls the subtleties of Zeno. By similar reasoning, it is possible to show that Achilles could never overtake the tortoise. The deliverances of Professor James on this point are curiously inconsistent. In one place he calls the ratiocination of Stumpf "acute and conclusive." But only a few pages back he writes in a note: "Stumpf (*Tonpsychologie* i, 116) tries to prove that the theory that all differences are differences of composition leads necessarily to an infinite regression when we try to determine the unit. I cannot find the completed infinite to be one of the obstacles to belief in this theory, although I fully accept Stumpf's general reasoning."

What James himself says on the question appears to be rather irrelevant and confused. He seems to make no clear distinction between the theory that resemblance is partial identity and the theory that all differences are due to the varying combination and recombination with itself of an unvarying element. The denial of an ultimate perception of resemblance is apparently identified by him with the denial of an ultimate perception of difference. In view of such misconceptions, I must here protest my complete innocence of anything in the nature of a "mind-stuff theory." I admit an ultimate and irreducible presentation of difference and also of identity in difference. What is denied is that any cogent proof is forthcoming of the ultimate nature of the presentation of similarity as distinguished from that of sameness. I contend that similarity may in all cases be regarded as sameness indeterminately localised; so as to be masked by differences.

On the whole, the arguments urged against this view appear to be anything but conclusive. They are by no means sufficient to upset the presumption arising from those numerous instances in which similarity is admitted to be susceptible of direct analysis.

SCOTUS ERIGENA, "DE DIVISIONE NATURÆ."

By Mr. CLEMENT C. J. WEBB.

THE book of which I am to present to-night a short account to the Society is one of which little or nothing remains to be said, after the competent treatment which it has already received at the hands of writers of the highest authority, such as (to mention only those with whose work I have had the opportunity of acquainting myself) Hauréau, Dorner, Erdmann, and especially Baur in his treatise *Die Dreieinigkeit und Menschwerdung Gottes*. What I can say is necessarily neither new nor complete, and can be of use only to those whose studies may chance never to have led them to investigate the philosophy of the early Middle Ages.

The consideration of the principal work of John Scotus Erigena, *De Divisione Naturæ*, will be best introduced by recalling to your minds the character and history of its author, the first considerable metaphysician of whom these islands can boast, and one of the most striking figures of his age, the close of the ninth century of our era.

He was by nation a Scot, at a time when the word was used as well of the Scots who remained in their original Irish home, as of those who were settled in the part of North Britain which now bears their name. Despite the existence of several rival interpretations of his other surname, Erigena, or earlier Ierugena,* which it would be out of place to discuss here, it is most probable that it indicates an Irish origin, and that this "Scot" was a son of that Irish Church which had two centuries before his time sent forth her missionaries into the wild countries along the German border of the ancient Roman Empire as far as the mountains of Carinthia, and which was in his time famous for its schools, in which the tradition of Greek learning, now fast vanishing from the West, still held its ground, having probably received a new impulse towards the end of the seventh century from the establishment of Greek teaching at Canterbury by the celebrated Archbishop Theodore of Tarsus. Sprung originally then from Ireland, the chief part of the life of John the Scot was spent in France at the court of Charles the Bald, grandson of Charlemagne, and a patron of letters. While he thus belongs equally to the civilisation of the lands where Teutonic conquerors had entered into the heritage of such Roman culture as had survived internal decay and barbarian irruption,

* See for a summary R. L. Poole, *Medieval Thought*, p. 55n.

and to that of the remoter Celtic West beyond the limits of the empire, he links both to the civilisation of the Levant, not only by his knowledge (considerable rather by comparison with that about him than in itself) of the Greek language, but by the marked bent of his thought to Greek speculation; a bent which exposed him to some suspicion at a time when the Greek and Latin Churches were at variance, and the controversy of the Byzantine patriarch Photius with the Roman See was at its height. Such suspicion will, perhaps, not appear unjustified when we consider the tone of the little elegiac poem which follows in some MSS. his version of the epistles of the false Dionysius, deploring the ruin and degradation of Rome, and contrasting it with the glory of the new Rome, Constantinople;* or the evident leanings of some passages in the *De Divisione Naturæ*† towards the Greek way of stating the doctrine of the procession of the Holy Ghost, leanings not less unmistakeable because he expresses his contentment with the *Filioque*—for the addition of which, however, he can find no reason—and even alleges scriptural and patristic texts in support of it. Thus in the two questions which divided the Eastern and Western Churches, the sympathies of Erigena were with the former; and we cannot be surprised that Pope Nicholas I complained to Charles the Bald that the translation of the so-called Areopagite (whose writings had been sent to Charles' father, Lewis the Pious, by the Greek Emperor Michael) undertaken by Scotus Erigena, had not been submitted to the Apostolic See for approbation, "especially since the said John, although reported to be a man of great knowledge, yet was once commonly said to hold unsound opinions on certain points." We cannot with certainty add that this man, by birth an Irishman, resident in France, and in intellectual sympathies a Greek, ended his days after the death of his patron Charles in England, under the protection of Alfred; yet later accounts assert this, and make him die as a teacher in the Abbey of Malmesbury (it is William of Malmesbury who tells us this), murdered by the boys whom he taught. The story has no contemporary authority; and later writers seem not always to have distinguished our philosopher from other persons of the same name, as John the Old Saxon, or John the Scot of Melrose, both of the same date as Erigena; or the much later John Scotus, Bishop of Mecklenburg and martyr, whose name

* Ed. Migne, col. 1194a. "*Vulgus ab extremis distractum partibus orbis, servorum servi nunc tibi sunt domini.*" Floss (proem. p. xxiii) understands this of the Saracens; but may not *servorum servi* refer to the Popes, and *vulgus* to the miscellaneous Roman rabble?

† *De Div. Nat.*, lib. ii, capp. 31-33.

is said to have been removed from the Roman martyrology in A.D. 1556, on the ground that the heretic thinker, whose work had been condemned to the flames by a papal bull in the thirteenth century, had no claim to the honour of a place among the saints—the real martyr thus suffering for the sins of quite a different person. But if we have then no certain account of Erigena's later history, yet he was in his time a conspicuous figure, especially from the part he took in the controversy about predestination started by Gottschalk, and also in that raised by Paschasius Radbert on the manner of Christ's presence in the Eucharist. We must now turn, after too long a preface, to the consideration of the work before us.

The chief production of our author bore a Greek designation, *περί φύσεως μερισμοῦ* or *περί φύσεως*. It was condemned under the corrupt name of Periphysis by Pope Honorius III in 1225.* As was natural in one who found his principal inspiration in the writings of Greek theologians, Erigena delighted in Greek phrases, and freely interspersed his Latin poems with words, and even whole lines and couplets, in Greek. His skill in that tongue, despite the enthusiastic praise bestowed upon it, as displayed in his translation of the Areopagite by the contemporary papal librarian Anastasius† (who only laments the over-literal character of the version), was but limited; thus he never translates *οὐκ ὂν* but as a negative, and regularly renders *βαρῆθεις πέλαις* in a passage of St. Gregory Nazianzen, in the commentary of St. Maximus,‡ as *gravatus pueris*. For all this he could understand and translate the language with substantial accuracy, and doubtless his knowledge of it far surpassed that of the majority of Gallic scholars of his day.

The basis of the work before us is to be found in certain Greek writings of a mystical tendency, those, namely, of St. Gregory of Nyssa, St. Maximus, and the unknown author who passes under the name of Dionysius the Areopagite. To characterise these a few words must suffice. The false Areopagite is generally looked upon as a Christian neo-platonist of the school of Proclus. His Christianity, as far as his philosophy is concerned, is but skin-deep, and even this is more than tinged with monophysitism; yet the pseudonym which claimed for him such apostolic antiquity, and a relation of personal acquaintance with St. Paul, gave him (despite the reasonable suspicions felt when his authority was first quoted in the reign of Justinian for writings entirely unknown to the theologians of preceding generations) a powerful influence upon the historical

* Cf. *monitum ad lectorem* in Migne's edition.

† Ed. Migne, col. 1025, 1026.

‡ Maximus, *Ambigua*, ch. i.

development of Christian theology, which has been justly pointed out and lamented in the Bampton lectures of last year by Mr. Gore.* As the creator of the mythology of the nine angelic orders (which was combined afterwards with the Aristotelian doctrine of spheres and sphere spirits), he has no small importance, not for the theologian only, but for the student of general literature. From this author, Scotus Erigena, who constantly refers to him with expressions of reverence, derived his doctrine of the Deity as transcending all being, knowledge, and utterance, so that negative predicates are applicable to him rather than affirmative. This conception, however, which is not altogether agreeable to the spirit of Christianity, is balanced in the system of Erigena by another which he owed chiefly to St. Gregory of Nyssa, the brother of St. Basil, who treated of it in the work called by Erigena *De Imagine*, but generally known as *De Conditione* or *Opificio Hominis*—that, namely, of the human soul as the image of the divine nature and, like it, triune. That the philosophy of Erigena is a union of the points of view of the Areopagite and of Gregory of Nyssa, has been well pointed out by Baur.† But even more perhaps than either did St. Maximus, the Constantinopolitan monk and confessor, known in the ecclesiastical history of his time as an opponent of the Monothelite heresy, influence our author, who translated his *Scholia* on St. Gregory the Divine of Nazianzum (we may observe, by the way, that the latter father was by Erigena regarded as identical with his contemporary namesake of Nyssa)‡; and to Maximus would seem to be due the general doctrine of the procession of all things from God, through the primordial causes, the Platonic ideas, into phenomenal being, and their return into the causes and the Deity; but I have not been able to acquaint myself as much with the writings of St. Maximus as with those of Pseudo-Dionysius and Gregory Nyssen.

These, supplemented by some works of St. Augustine and St. Ambrose, form the materials out of which the mind of Erigena evolved the system which he expounds in the *De Divisione Naturæ*. That work deals with Nature in its widest sense. Nature, he says, § is a general name for things which are and things which are not. He enumerates several ways of drawing a distinction between being and not being; but the most important for him is that between things which are as falling under the cognisance of understanding and sense, and things which transcend these, as "God, matter, and the ideas and essences of creatures."|| Nature, thus comprehen-

* *The Incarnation of the Son of God*, p. 164.

† *Die Lehre von der Dreieinigkeit*, &c., ii, p. 263.

‡ *De Div. Nat.*, iii, 38. .

§ *Ib.*, i, 1.

|| *Ib.*, i, 3.

sively taken, is then divided by Erigena into four kinds: (1) the Nature creating and not created, viz., God as the source of all being; (2) that creating and created, viz., the primordial causes or Platonic Ideas, constituting the intelligible world; (3) that created and not creating, viz., the effects of these causes, constituting the sensible world of becoming, time and space; (4) that neither creating nor created, viz., God considered as the supreme and unchangeable unity into which all things return.* The five books of the *De Divisione Naturæ* treat, but not with rigid exclusiveness in the case of any of them, the first of (1), the second of (2), the third of (3), the fifth of (4), while the fourth forms a transition from (3) to (4). Scotus Erigena is especially interested in the investigation of (4).

The Nature which creates but is not created is God as the first cause of all things. God is indeed sometimes said to be created;† but this is not in reference to any creation of God by another, but only to his manifestation of himself, which is just what we mean by his creation of other things. As our thought may be said "*fieri*," to be made or become, when it passes out of its hidden being, which is being-for-self and for God only, into definite conceptions and imaginations, which are its manifestation, its being-for-other, in which process, however, only itself is operative: just so God's creation is his manifestation of his inscrutable being, which would otherwise be no object of knowledge at all, whereas from the threefold nature of the world, from its being, order, and motion, we can infer the threefold nature of its cause, and have thus an object for the religious consciousness, which would else have nothing to think or say about the ineffable and incomprehensible Deity. The transcendency of God is then shown at length, the ten Aristotelian categories being taken, and God shown to transcend each in turn.‡ In this discussion Scotus Erigena makes use of the distinction drawn by the Areopagite between "cataphatic" and "apophatic" theology.§ The former asserts each sort of predicate of God, but only in a metaphorical sense, the characteristic of the effect being ascribed *eminenter* to the cause; the latter with equal, or rather with greater propriety, denies each of him. No attribute with a co-ordinate opposite is rightly predicated of God. He is not οὐσία ἀγαθότης θεός, *essentia bonitas deus*, in such sense as those words have contradictories, but ὑπερουσίας ὑπεράγαθος ὑπέρθεος, &c. In him contradictories are both true, for he transcends the sphere in which contradiction is valid. As transcending the categories, God transcends the possibility of comprehension and expression. Hence for Erigena as for

* *De Div. Nat.*, i or ii, 1.

† *Ib.*, i, 15.

‡ *Ib.*, i, 12, 13.

§ *Ib.*, i, 13.

Kant, our theology can have a practical value only; the divine nature in itself is no object of knowledge, but transcendent and ineffable. As (1) and (4) coincide in reference to the Creator, (2) and (3) coincide in reference to the creative. The first form of the creative is found in the ideas or primordial causes, which God created first in his only-begotten Son, and through which the phenomenal world derives its being from the divine first cause.* This is the subject of Book II. In this book Erigena brings forward another parallel division, which he derives from St. Maximus, but which he believes to be due to a tradition descending through the Apostles from Christ himself.† In this the world is divided into intelligible and sensible; the sensible world into heaven and earth; the earth into paradise and *orbis terrarum*; and man, who is represented as the microcosm, into male and female. In the unfallen state, man, then himself at one, because not divided into the two sexes, was the summary and unity of the whole created nature; his condition was wholly paradisaical and heavenly, and spiritual and intellectual, and as abiding in his Idea was completely united to the Creator.

The restoration of man to his original unity, now lost by sin, will involve the restoration of all creation to unity with itself and with God.‡ This restoration was begun by Christ in his own person.§ Born as true man, he began to abolish the distinctions introduced by sin in his virgin birth, which condemned the sexual (bestial) manner of propagation substituted by man at the fall for the angelical which truly belonged to him. Then rising again as man, without distinction of sex|| (though still appearing as male lest his disciples should not know him), he restored Paradise in his conversation with his disciples upon earth. For Paradise is not to be distinguished from the world temporally or spatially, but by spirituality of life; in Idea there is no distinction between them. The risen Christ in his spiritual body transcends time, space, quantity and determinate form.¶ Hence we may be at once in Paradise and in the world. Into this glorified state in which Christ entered at his resurrection, the elect shall enter at the general resurrection, and the whole sensible world shall retain, "in Deum et in primordiales causas suas." The distinction of sex and other natural distinctions were created by God from foreknowledge of the fall, that by them he might not vindictively punish the wrong exercise of the freewill which he had made, but in the way of discipline lead man back to his original state, where being preserved both by divine grace and of his own

* *De Div. Nat.*, ii. 2.

§ *Ib.*, ii. 10.

† *Ib.*, ii. 3.

|| *Gal.*, iii, 28.

‡ *Ib.*, ii, 6, 8.

¶ *De Div. Nat.*, ii, 11.

freewill "non caderet, nec cadere vellet nec posset."* Christ then, as on his resurrection he abolished the difference between the world and paradise, on his ascension abolished that between earth and heaven, and passed in our humanity into the presence of God, from whom, as Word, he was never parted. Though the sexual distinction does not belong to man's original nature, yet in the soul there is something analogous in the distinction of *νοῦς* and *αἴσθησις*; here, however, we should see not "*naturae divortium*," but a sacrament of Christ and the Church, and the double outlook of the understanding toward the Creator and the creature. In this process of restoration Christ takes the fourfold nature of man (body, sense, soul, reason), and herein the whole created nature, and restores it to unity and simplicity; there was nothing in man, except sin, which he did not take.†

The consideration of the chief difficulties of this doctrine, viz.: the abolition of sex and the manner of the ultimate union of the different parts of nature, are reserved to Book V, and the second book proceeds with the consideration of its special subject, the Primordial Causes or Platonic Ideas.‡ The form which this takes is that of a commentary upon the first verses of Genesis which are interpreted as describing the origin of the world of Ideas.§ By the creation of heaven and earth is intimated the production of the Ideas of the spiritual and sensible world respectively; by the formlessness of the earth, the state of the latter before their manifestation in their effects; by the darkness on the face of the deep the state of the spiritual creature before there was a created intellect to know it. Like God, and like our own minds, these Ideas, even after manifestation, i.e., after acquiring being-for-others and relation to knowledge, remain in themselves incomprehensible.|| They are comprehended only by the divine intellect: this is signified by the passage which describes the Spirit as moving upon the face of the waters.¶ The Ideas are created before all time, and in a certain sense are co-eternal with the eternal generation of the word (whose content, so to speak, they are represented as being), though in a certain sense they are not co-eternal with him, since they owe their being to him;** the persons of the Trinity are strictly co-eternal, yet even among these there is subordination. The soul of man displays an image of the triune nature of its Maker; it displays *essentia virtus operatio, οὐσία δύναμις ἐνέργεια*.†† These are otherwise called *νοῦς λόγος* and *διάνοια* "internal sense." The two parts sometimes named with

* *De Div. Nat.*, ii, 12.

† *Ib.*, ii, 13.

‡ *Ib.*, ii, 14.

§ *Ib.*, ii, 15 foll.

|| *Ib.*, ii, 18.

¶ *Ib.*, ii, 19.

** *Ib.*, ii, 20, 21.

†† *Ib.*, ii, 23.

these, vital motion and body, do not belong to the divine image, but were added because of the fall. The soul has three motions, corresponding to its three original factors; that of sense, about the manifold; of reason, about the Ideas; of intellect, about God. What sense knows as divided into genera, species and individuals, reason knows in the unity of the Idea; what reason knows as one, sense knows also as the manifold, what sense knows as manifold, reason knows as one. Intellect knows that all things have one cause and abide in the unity which is theirs in the one first cause, and that they find in him the end and goal of their motion. Thus from sensible things we rise through the Ideas to God, and so pass from the image to the archetype, from the human to the divine Trinity—which differs in this, that while the soul creates the body (not, that is, the original spiritual body, made by God along with the soul, and to be revealed again in the restoration of all things, but the present material body), it does this out of qualities ready to its hand; but the divine Trinity creates its image, the human soul itself, out of nothing.* This power of creating out of nothing is the one prerogative of Deity; otherwise the created image exactly expresses the self-subsistent archetype. It is the immanent providential ruler of its body, as God of the world;† the human mind is all-embracing like God's; man's essential nature, like God's, is inscrutable even to himself‡—for God does not know *quid est*, what he himself is, since he is not *somewhat* but transcends determinate being, so that this ignorance of God's is higher than would be a knowledge of *what* he is, i.e., of his inclusion among the creatures.§

In Book III, we pass from the created and creating nature to that created and not creating, from the causes to the effects, from the Ideas to their manifestation.|| There is an order among the Ideas themselves; though not an objective order, for there is no distinction among them as they exist in the unity and simplicity of the divine Word; but relative to our minds, to which they appear by "theophanies," by which name Scotus Erigena denotes all our knowledge, thereby preparing us for his fundamental view that the essence of all things is God. First in this order is *goodness*, which precedes *being*, because God's goodness determined him to call things into being, and goodness constitutes the value of being, things having less being the less good they are.¶ The divine goodness, though diffused through all the grades of being, remains unexhausted; as our mind, its image, persists unmodified through all its phenomena in its incomprehensible unity, differing only in needing pre-existent

* *De Div. Nat.*, ii, 24-26.

§ *Ib.*, ii, 29.

† *Ib.*, ii, 27.

|| *Ib.*, iii, 1.

‡ *Ib.*, ii, 28.

¶ *Ib.*, iii, 2.

material in which to manifest itself, whereas God created from nothing both the Ideas and the unformed matter which is the occasion of their self-manifestation in their effects.* The Ideas are at once eternal and created;† eternal in the word of God; created in their proceeding forth into their effects, and that out of nothing; which means only that there was a time when they were not, that is, a time when they had not being-for-other or manifestation;‡ yet this is not the profoundest point of view; for they are not eternal in the Word, created outside the Word, but eternal and created in the Word.§ How then from nothing? Only because this “nothing” for the theologian signifies but the ineffable divine nature of the Word itself which transcends being.||

Thus all is “theophany”; the making of all things is but a way of expressing the self-revealing of the eternal Nature.¶ God *is* all in all, and if it is said that he *shall* be so, this is but a subjective statement, implying that man shall recognise that divine omnipresence which is now and always the real fact, but which owing to sin is at present hidden from him. Thus all the forms of nature, not only the first and fourth, but the second and third, are aspects of the one God; who is as the *first* the origin, as the *fourth* the goal of all, while the *second* and *third* represent but the two stages of his manifestation of himself.**

The discussion of the *third* form takes the shape of an exposition of the six days’ work of creation as described in Genesis.†† The formula “let there be—and there was—and there was morning and evening, one day,” is interpreted of the establishment of the primordial causes—their procession into genera species and individuals—and the two “contemplations” of things, viz., of things in their primordial causes, and of things in their particular existence, which two are yet but different forms of the one “intellectus” of the whole universe.‡‡ This last part of the interpretation, we may observe in passing, is due to St. Augustine,§§ who originated the distinction here indicated of “morning” and “evening” knowledge which St. Thomas elaborated,||| and which has been somewhat ignorantly ridiculed in the gibe that the schoolmen discussed whether the angels knew things better in the evening or in the morning. “God saw that it was good” indicates that God saw in all himself, who alone is good.¶¶ The “firmament” is the four elements, the “waters above the firmament” the Ideas, the “waters below the firmament” the material world. Life, to which alone is due the *species sensibilis* of all objects

* *De Div. Nat.*, iii, 4.

† *Ib.*, iii, 5 foll.

‡ *Ib.*, iii, 15.

§ *Ib.*, iii, 16.

|| *Ib.*, iii, 19.

¶ *Ib.*, iii, 20.

** *Ib.*, iii, 23.

†† *Ib.*, iii, 24 foll.

‡‡ *Ib.*, iii, 27.

§§ *De Genesi ad litteram*, iv, 22 foll.

||| *Summa*, p. 3., qu. lviii, 6, 7.

¶¶ *De Div. Nat.*, iii, 28.

of sense, and which is ascribed by philosophers and church fathers to plants, is yet mentioned in Genesis only in reference to animals, to displace the imperfection of its lower forms.* Incidentally, Scotus Erigena shows his leaning to the belief that animal as well as human souls are immortal.† The crown of the creation is man, in whom all is summed up,‡ his creation is twice described, once as included in the genus of animals, once as made in God's image. He is thus animal and not animal, and so, like God, a synthesis of opposites transcending the region of contradiction. There are not two souls (as Telesius and Bacon afterwards held), but one soul with two aspects. In man the whole created nature is represented; angelic intellect, human reason, animal sense, vegetive life, material body. He is also, as to his soul, the image of God, both in the macrocosm and in the microcosm of his own nature. What is not actually in him, *e.g.*, irrationality, is in him as object of his knowledge§; and the being of anything in the mind of a superior nature is a truer being than its being in itself; thus the truest being of all things is in the Ideas of them in the divine mind. Though it appears as if man were created last of all; rightly understood, each day of creation saw the formation of a part of his composite nature||; the first day of his intellectual nature (and that of the angels); the second of his spiritual body made of the four elements; the third of his vegetive nature; the fourth of his interior sense in its three stages, infallible (the sun), fallible (the moon), and vague (the stars); the fifth of his exterior fivefold sense; the sixth the completion of his nature. Man is God's image as to his soul, which is omnipresent in the body as God in the world, and, like God, incomprehensible.¶ The material and sexual body was added because of the fall**; and statements of the fathers, which apparently contradict this view, are reconciled with that of the writer by reference to the eternity or timelessness of God, to whom all is present at once—the consequence of sin together with the foreknowledge of it.†† In the story of the fall, the time-element is merely dramatic; no time really elapsed between the creation and the fall of angels or of men.‡‡ The space-element is also not of the essence of the matter.§§ Paradise is no place, but human nature itself, which is represented as sixfold, thus—

1, Intellect.	2, Reason.	3, Interior Sense.
Image of God.		
4, Exterior Sense.	5, Vital Motion.	6, Body.
Added because of sin.		

* *De Div. Nat.*, iii, 36, 38.

§ *Ib.*, iv, 8.

** *Ib.*, iv, 12.

§§ *Ib.*, iv, 16.

† *Ib.*, iii, 39.

|| *Ib.*, iv, 9, 10.

†† *Ib.*, iv, 14.

‡ *Ib.*, iv, 5.

¶ *Ib.*, iv, 11.

‡‡ *Ib.*, iv, 15.

Christ, the "well of life," is the *spring**; the four cardinal virtues the *four rivers*; by the *man* is meant the rational nature; by the *woman*, the sense, the origin of all illusion in us; by the *serpent*, unlawful pleasure in things of sense; by the *tree of life*, Christ incarnate in human nature; by the *tree of knowledge of good and evil*, the confused appetite of the carnal sense after divers lusts. These two trees are in the *midst of the garden*, viz., the former in the interior, the latter in the exterior, sense. The tree of knowledge is not planted by God, because evil has no substantial existence, but is rooted in the perversity of the free will.† We need not follow out the rest of this mystical interpretation in the detail given by Scotus Erigena, but only mention a few significant points. *Adam's sleep* is the turning from the Creator to the creature, from the eternal to the temporal; and is followed by the *separation of the sexes* and the *clothing in skins*, viz., in mortal bodies.‡ The question of God, *Where art thou?* signifies the fall of man from his heavenly condition beyond space and time into the local and temporal earthly state.§ Man could not put off his fault on the woman (his carnal sense), whose existence was due to his sleep, his turning away from his Maker; nor the woman on the serpent, since this is the carnal pleasure, for which the woman herself is to blame. The judgment on the serpent, "She" (the woman, according to the Vulgate) "shall bruise thy head," refers to the triumph of the saints in their wise and virtuous use of their senses over the devil.|| The judgment on the woman denotes the penalty of sin, whereby our senses do not give us immediate insight into the natures of things except through the labours of study, "conceptions" or first beginnings of intellectual knowledge, and "children," viz., right reasonings "brought forth" by elaborate processes of inference. The words "Thou shalt be in the power of thy husband, and he shall reign over thee," signify the divorce of the "law of the mind" "of God," and the "law of the members" "of sin" lamented by St. Paul.¶ The judgment on the man is explained of the purgative process of the life of probation. His return to dust or earth is explained by his restoration to his permanent essential nature.**

This brings to an end Book IV, which, though following straight on from Book III, has brought us to the subject of the restoration by describing the fall. In Book V the process of fall and restoration is represented as an instance of the general principle of a cycle, a return into the beginning, which is illustrated by many natural processes,

* Gen. ii, 6, Vulg., "Sed fons ascendebat e terra."

† *De Div. Nat.*, iv. 17 foll.

|| *Ib.*, iv, 24.

‡ *Ib.*, iv, 20.

¶ *Ib.*, iv, 25.

§ *Ib.*, iv, 23.

** *Ib.*, iv, 26.

astronomical and biological, and by the method of the liberal arts.* The return of human nature has five stages: (1) the dissolution of the body into the four elements whence it was taken; (2) the resurrection or recovery by every soul of its own body out of the four elements; (3) change of body into spirit; (4) change of the spirit, the complete nature of man, into its primordial causes or Ideas existing immutably in God; (5) change of the nature with the Ideas into God, that God may be all in all.† In these changes the translated substance does not change or lose its properties, but yet is permeated by the higher nature as air by light. Thus in the end we have unity in multiplicity, a conception already suggested by the triune nature of every substance, *essentia virtus operatio*, by the unity of individuals in a species, of species in a genus, and so forth.‡ Some striking images (not always original in Scotus) are brought forward to illustrate this *adunatio*, e.g., that of a number of lamps in a church producing one light, the separate contributions to which of each lamp are not to be distinguished, though the result of taking one lamp away proves that they are not lost in the joint effect; or again that of the union of voices in a harmony.§ Time and space for Erigena, as for St. Augustine, came into being with the world of which they are indispensable parts (*ὡν οὐκ ἄνευ*), and will perish with it.|| The world of matter and form which exists in them will pass away: the world which “abideth for ever” is the world of Ideas which exists in the eternal Word of God.¶ The Word, who is thus beginning and end of all things, is also the agent in the return of nature into God through his incarnation,** wherein he took humanity in which the whole created nature is summed up, and restored it by abolishing in it the five divisions of St. Maximus to its ideal unity with itself and with God; lifting it in his ascension to equality with the angels, and above them to the divine level of exaltation, “above all things that are and that are not.” The restoration of man begins by the return of the body into its elements, and is continued by the recovery of the body from them at the resurrection, which is the combined work of nature and of grace;†† of nature, so far as concerns mere restoration to the primitive or ideal state; of grace, in so far as some (the elect, together with the unfallen angels) are exalted by “deification” above all nature, though not above all theophany, whither only the manhood of the Word is exalted. The rest of the book works out the distinction thus introduced between the *datum*, or gift of nature, and the *donum*, or gift of grace; between mere

* *De Div Nat.*, v, 3, 4.

§ *Ib.*, v, 12, 13.

** *Ib.*, v, 20.

† *Ib.*, v, 8.

|| *Ib.*, v, 17, 18.

†† *Ib.*, v, 22, 23.

‡ *Ib.*, v, 9, 10.

¶ *Ib.*, v, 19.

restoration and *deification* (the latter a bold word borrowed by Frigena from St. Maximus). Restoration is, as St. Gregory of Nyssa taught, universal, for evil is finite, good infinite; and just as the shadow of the earth extends some miles into space, but diminishes to a point, after which there is nothing but light, so natures that turn away from God, when they have reached the end of evil, necessarily turn back to good. It is not a part of humanity only, but the whole, that shall be restored; this is involved in the completeness of the Word's incarnation.* A long and subtle discussion is devoted to the explanation of the doctrine of eternal punishment so as to bring it into agreement with this position.† The guiding principle is that nothing can be punished that is God's work, *i.e.*, is real. So the wicked, like the rest of the race, are restored to the paradisaical state, but are punished in the disappointment of the irrational desires of the perverted will. As the laws of music show us the necessity of contrasts in harmony, so the system of the world is made up of the union of opposites.‡ If anyone says that the motions of perverted wills are evil, and so should not be in the restored world, the reply is that they are not strictly evil, since they proceed from what is good, *viz.*, freewill; but only illicit, and are balanced and corrected by the divine judgments upon them. Their punishment is no more than the prevention of mere illicit desires from attaining their end. That the desires are not evil in themselves is plain from the fact that nothing is counted a fault in the rational creature, but is good in some irrational creature. Nothing mars the perfection and beauty of the universe as a whole, either now or hereafter; only the vision of perfection is hidden from us now, but shall be manifested hereafter to all alike, though the wicked, while beholding even the glory of God, shall be unable, as happens to persons with bad eyes, to bear the light, and so when it is said that they shall not *see*, it is meant that they shall not *enjoy* it. It is shown at length that the world has in it nothing evil or base, and that the illusion that it has is due to a partial view of a system which is as a whole perfect, and will so be seen by those who are taken up into God and acquire the spiritual man's privilege of judging all things aright. There can be no local hell or punishment, for places will cease to be, and among them the earth under which some place hell; but hell is within the wicked in the vain imaginations of their souls. The punishment of the wicked is good, both as just, as of divine origin, and as throwing up by contrast the excellence of the righteous, just as shadows do the surrounding light into which they vanish. While all are restored, only some are

* *De Div. Nat.*, v. 26.

† *Ib.*, v, 27 foll.

‡ *Ib.*, v, 36.

deified; all return into Paradise, only some eat of the Tree of Life; or rather all shall eat of it, but unequally; for it is Christ, the sole source of all good, natural and supernatural.*

The work is at last recapitulated by Erigena thus.† There are forms of nature: (1) creating uncreated, (2) creating created, (3) created not creating, (4) neither creating nor created. The former (1) and (4) describe God as (1) beginning, and (4) end, of all things: (2) and (3) describe the creative as (2) cause and (3) effect. The second subject of the work is the *return* of all things, which is triple, viz. (1) of the sensible world, (2) of the human race, (3) of the saints: of these the third kind is sevenfold, viz. (1) of body into life, (2) of life into sense, (3) of sense into reason, (4) of reason into spirit: then (man being now unified, one instead of fourfold) (5) of spirit into knowledge, (6) of knowledge into wisdom, (7) of wisdom into God. This accomplishes the mystical octave typified by the title of Psalm vi,‡ and by the day of our Lord's resurrection; made up of the 5 which denotes human nature (body, life, sense, reason, and intellect), within which the first four stages of the return take place, and the 3 which denotes the Trinity of the Godhead within which the last three stages fall, which belong, that is, to deification, not to the general restoration of human nature.

There is only room for a few scattered observations upon this vast system of theology and cosmology. I would draw attention (1) to the *rationalism* of the author. Scotus Erigena will have no unfaithfulness to the guiding of reason: again and again he reiterates the right of reason to take precedence of authority, even of the authority of the Scriptures.§ Reason is prior to authority; authority is only reason at second-hand.|| We are reminded of Butler's similar contention: "If the Scriptures are contrary to reason, let the Scriptures, in the name of God, be given up";¶ but, unlike Butler, Scotus Erigena held himself entitled to obviate any apparent contrariety between Scripture and reason by a free use of the principle of "mystical interpretation"; and he did not scruple, in his work on Predestination, to assert that some passages of Holy Writ should be interpreted "by contraries."

We may observe (2) our author's philosophical *monism* and religious *mysticism*. For him God is the one substance of all things; the world is a theophany, the phenomenon of God, who is in himself above the reach of all sense and understanding. His insistence upon this

* *De Div. Nat.*, v, 38.

† *Ib.*, v, 39.

‡ In the Vulgate it runs: "*In finem in carminibus, Psalmus David, pro octava.*"

§ *De Div. Nat.*, i, 63, 65.

|| *Ib.*, i, 66.

¶ *Analogy*, part ii, ch. 5.

essential unknowableness of God distinguishes the view of Erigena from that of thinkers who worship nature as God; for him nature is God indeed, but God is more than nature; the most profound adoration is reserved for that divine being-in-itself which is no object of knowledge: and so with Erigena, as with his neo-platonic predecessors, the nearest approach to God is not in thought, but in *ecstasy* the negation of thought. Here Erigena is inaccurately described as a pantheist, but correctly as a mystic. As for all mystics, so for him, the historical part of Christian doctrine is important rather as the "moving image" of an eternal or timeless fact than as history. It is owing to the abuse of freewill—which Erigena admits—that the eternal One in many of the universe, appears to us as a process of the Divine Word into subordinate causes and effects, and a return of the effects into the causes and into the Word. The descent of the Word into humanity in the incarnation, and his return in humanity to God, is really the same process as carried out in the special case of a fallen race, first in the person of Christ, and afterwards in that of the whole race whose nature he took, and of its individual members.

Thus we are prepared for (3) his *universalism*. It is to those whose attention is concentrated on the representative historical development of the redemptive work that there seems to be a world beyond its sphere and contrasted with it, correspondent to the heathendom which surrounds and opposes the church. Where attention is rather fixed on the one hand upon the eternal unity in multiplicity, and multiplicity in unity symbolised by creation and redemption, and on the other hand upon the union of God with man, and man with God, in the spiritual life which represents in all the members the story of the incarnation and ascension of the Head, any limitation of the benefits of salvation appears unaccountable and even a heresy, as denying the perfect and complete assumption of humanity by the Word. If the strong ethical sentiment of Erigena and his faithfulness to church teaching leads him even so to limit the highest degree of exaltation, deification, to the elect, this does not affect the fact that he is a universalist, and that as a necessary consequence of his philosophy.

We have seen that our author was regarded not without suspicion by the pope of his time, and that he was generally considered to be heterodox on the Eucharist, and on divine predestination, but of the reception of his greatest work by contemporaries we have no record. In the turbulent times which followed, his philosophy seems to have been neglected and forgotten. The controversies on the sacramental presence of Christ kept alive some remembrance of his views on that subject—though not, if the now common opinion be true, an accurate remembrance, since a book was attributed to him and condemned as

his which was really the work of his contemporary, Ratramnus—yet in the main he was probably a name only, the name of a learned theologian, a “sanctus sophista” (as some verses quoted by William of Malmesbury call him, or one whom William confused with him), whose works were not altogether free from questionable doctrine. It was in the great outbreak of heresy in France in the 12th and 13th centuries that the book *De Divisione Naturæ* was found in circulation among some of the pantheistic sects then so numerous, and a bull of Pope Honorius III, issued in 1225, ordered the burning of all copies which should be discovered. This condemnation was for a time effectual, and the book disappeared again till the publication of the *editio princeps* by Gale, of Oxford, in 1685. So completely was it lost, that it was not included in the index of forbidden books, as sanctioned by the Council of Trent, though it was placed on the list as soon as it reappeared.

In comparing our author with modern thinkers, there is, of course, an obvious similarity of certain opinions delivered in the *De Divisione Naturæ* with those of Hegel. We must not, however, suppose a special influence of his on Hegel, whose knowledge of him appears to have been but slight, since he alludes to him as characterised by neglect of authority:* a statement which may be due to some acquaintance with his assertions of the primacy of reason, but which is inconsistent with the real facts of the case.

It is more important to note the points of agreement between him and Schopenhauer who studied him, as he did in general all mystics, with sympathetic respect. We find reproduced in Schopenhauer Erigena's interpretation of the doctrine of the fall of man, where the later thinker sees in it no temporal history, but a myth signifying the original sin of the will to live the life we know, and looks upon sex as the grand symbol of this original sin.† The notion of Erigena that the non-spatial character of life is shown by the fact that the *vis seminum* persists in the death of the plant and its resurrection in a specifically identical form,‡ also appears in Schopenhauer, when he describes the specific identity of the individuals of a kind, as a proof of the indifference to space of the will as thing-in-itself.§ Again just as with Erigena, in man begins the return from multiplicity to unity, so too with Schopenhauer the attainment of the will in man to the rational power of beholding the one in the many opens the way to the abolition of the will to live, and the consequent disappearance of its phenomenon, the “world as idea,” the manifold of

* *Werke*, xv, p. 144.

† *Die Welt als Wille u. Vorstellung*, b. iv, cc. 48, 42.

‡ *De Div. Nat.*, iii, 37.

§ *Die Welt* u. s. w., b. iv, c. 41.

experience.* And when the modern philosopher declares that we can only describe by negations, and as nothing that to which we set our faces in the denial of the will to live,† he repeats the doctrine of Erigena and his master the Areopagite, that the truest theology is "apophatic," and that God is more rightly called nothing than being; while he follows this old mystical line of thought, even to the extent of alleging the fakir's search for ecstatic unconsciousness as justified by his philosophy.‡

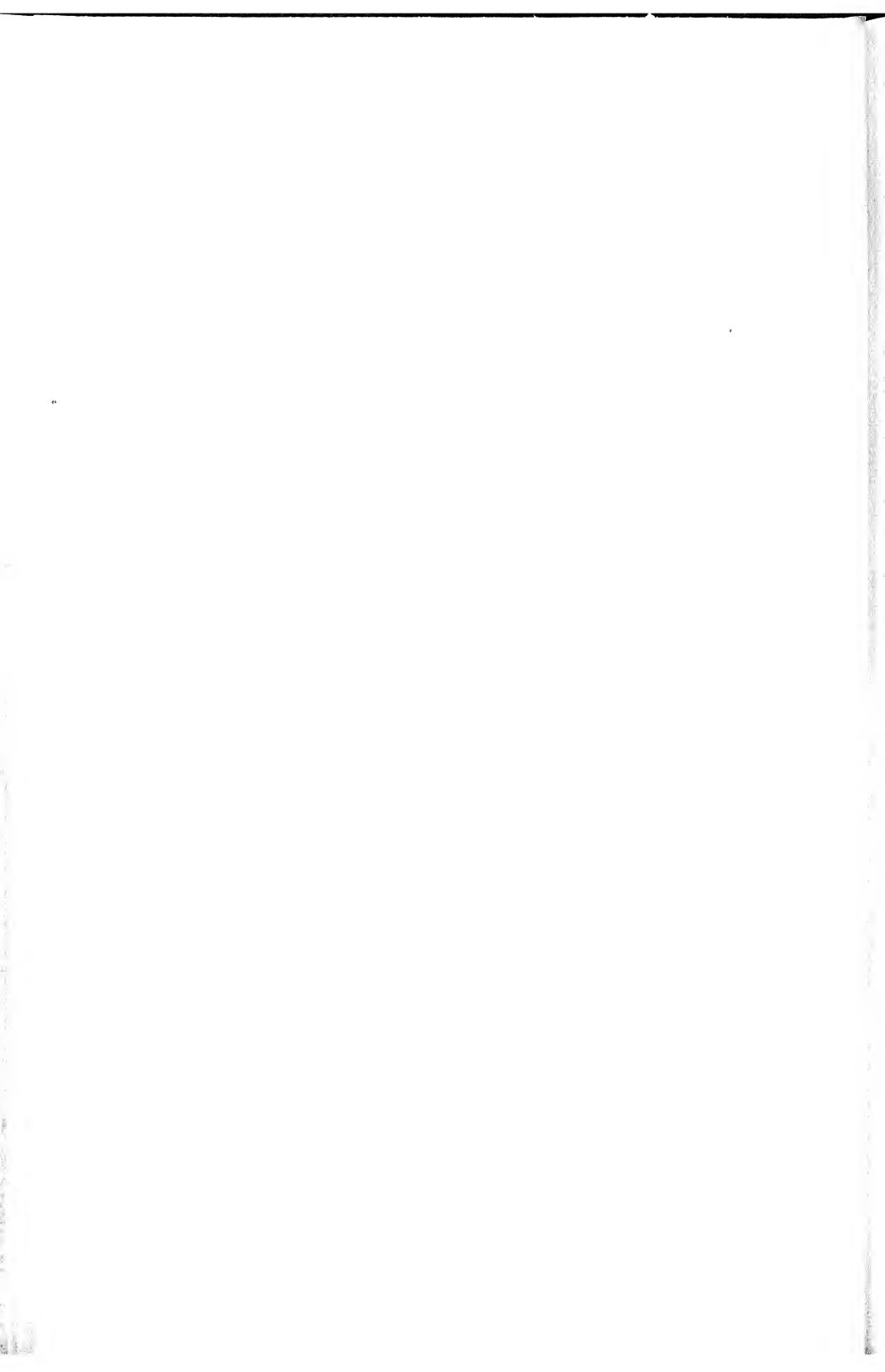
Of course, where to Erigena the divine nothingness to which we tend is that same eternal being who out of goodness manifests himself in the world from which we seek to return to him its cause, Schopenhauer regards it as the negation of that which is the inner essence of the phenomenal world, namely, the will. Thus the latter is atheist and pessimist, while his predecessor is theist and optimist. Error in the world-process is due for Schopenhauer to the groundless freedom of the will as thing-in-itself; error in the individual, who is only phenomenon, to strictly determining motives. For Erigena, on the other hand, the world-process is conditioned by, and grounded in, the divine goodness; the individual will is free, and herein lies the possibility of error. The individual for Schopenhauer passes away: for Erigena he remains—like the bush of Moses, on fire, yet not consumed. God is to be all in all, yet all that reveals Him shall remain intact, but filled and penetrated by Godhead as the air by the sun, where we see, not the air, though it is truly present, but the light of the sun only.§

* *Die Welt* u. s. w., b. iv, cc. 45, 48.

† *Ib.*, b. iv, c. 48.

† *Ib.*, b. iv, ch. 71.

§ *De Div. Nat.*, v. 36, l. 10.



PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

FOR THE

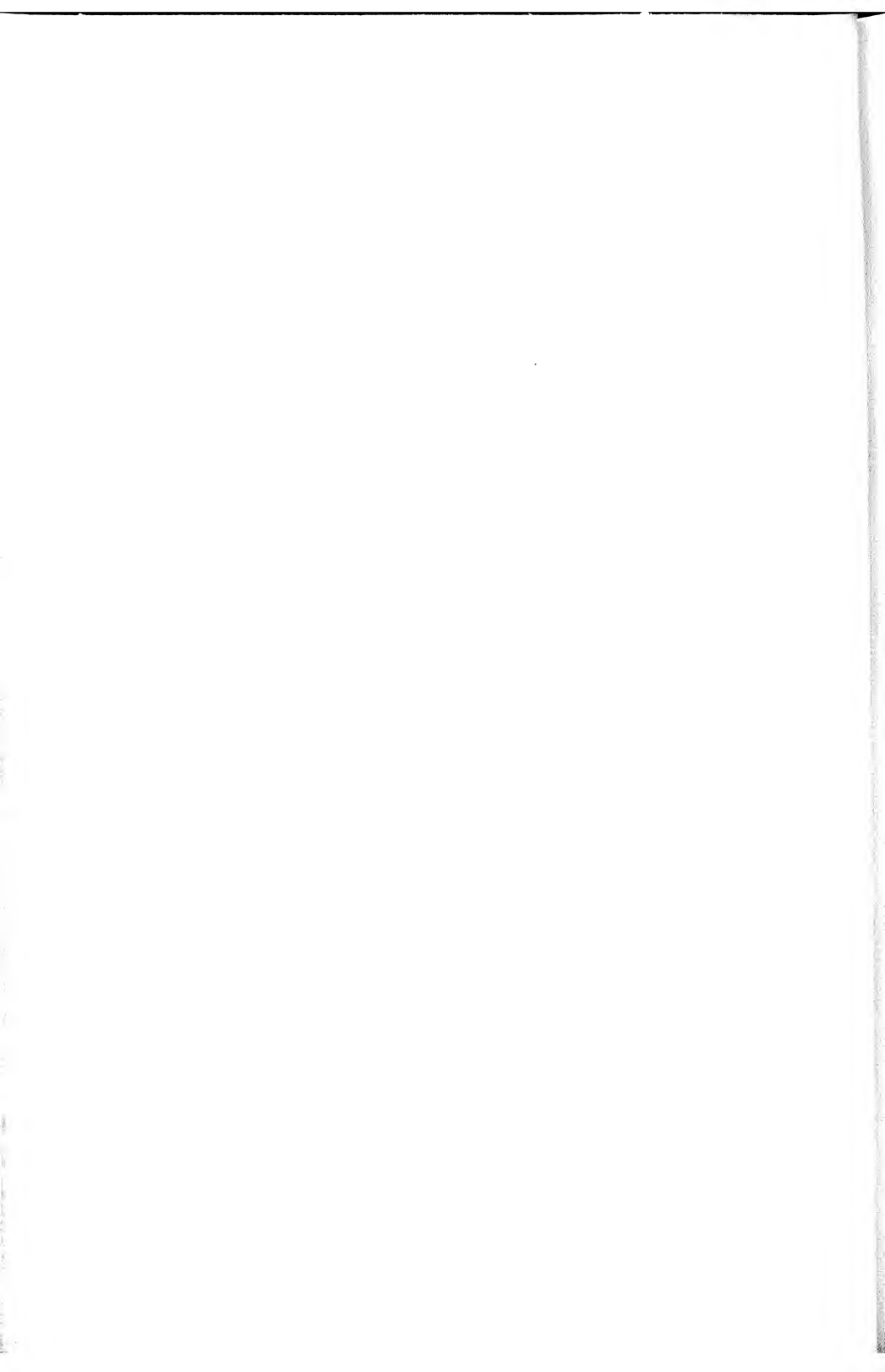
SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.

No. 2, Part I.

CONTENTS.

	PAGE
Presidential Address—Mind—By Shadworth H. Hodgson	1
The Nature of Force and Matter—By R. J. Ryle, M.A.	21
Symposium—Does Law in Nature exclude the Possibility of Miracle?—	
I. By R. J. Ryle, M.A.	31
II. By Rev. C. J. Shebbeare, B.A.	34
III. By A. F. Shand, M.A.	39
The Measurement of Space, Time, and Matter—By Prof. A. G. Greenhill, F.R.S.	43



PAPERS READ BEFORE THE SOCIETY

DURING THE SESSION 1892-93.

PRESIDENTIAL ADDRESS.—MIND.

By SHADWORTH H. HODGSON, Hon. LL.D. Edinburgh, *Hon. Fellow of Corpus Christi College, Oxford; President.*

I.

GREAT is the potency of popular usage, especially when enforced by alliteration. Sea and land, hill and valley, heat and cold, light and darkness, wind and wave, systole and diastole, induction and deduction, analysis and synthesis, and so on and so on, are all pairs of opposites, each member of which so naturally and by inevitable association recalls the other, that to speak at any length of the one, without making mention of its fellow, would be all but impossible without shocking that sense of logical propriety, with which the most unphilosophical of mankind are fortunately or unfortunately endowed. The additional force which alliteration lends to this auspicious union of opposites is well exemplified by a passage in Sheridan's play of *The Critic, or A Tragedy Rehearsed*, where it is made evident by the renowned Don Whiskerandos, that if in a moment of exhilaration you make the winds a present of your cares, doubts, and fears, and the present proves to be unacceptable, you will certainly succeed in getting rid of them if, as you inevitably must and will, you "try the waves."

This is just what I propose to do this evening; I am going to "try the waves." My Address last Session was on the subject of Matter. Popular usage enforced by alliteration suggests that my present Address should be on the subject of Mind. The Philosophy of Mind is a popular subject, and I obey the impulse to speak of it with the less reluctance, because it is perhaps best approached by way of a prior consideration of its supposed opposite and twin brother Matter, such as I endeavoured last year to lay before you. Mind and Matter are like the Castor and Pollux of mythology, of whom we read, that when one lives, the other descends to the shades, when one descends to the shades, the other revives and lives. So also in philosophy, when Mind is believed in as a reality, the necessity

for Matter being real disappears from view; when Matter is held to be real, the reality of Mind becomes a superfluous and even an embarrassing luxury.

There is only one objection to my entering on this engaging subject. It is that I am not a popular philosopher, and if I treat of it at all, I fear I must treat of it in a very unpopular fashion. All I can promise is to be plain, simple, and I hope intelligible. And there is this advantage in having spoken of Matter last year, namely, that I may proceed at once, or at any rate with very little further prologue, to apply the same method to the subject of Mind, and bring it to the same standard. You may remember that in my last year's Address I said: "Mind and Matter are both objects of consciousness, though whether Mind, like Matter, is a *real* object, may here be left undecided. About the reality of Matter there is no sort of doubt, except such as may be thrown upon it by the assumption of the reality of Mind. For if Mind is a reality, then the perception of Matter may well be its creature, and as perception of it is the only ultimate evidence of its reality, its reality sinks back into the position of an idea" (*Proceedings*, Vol. ii, No. 1, Part I, p. 4). In that Address I showed (1) what Matter was as a percept, (2) how its reality in the full sense, the sense of real and efficient condition, was inferred from that percept taken together with others, and (3) what the nature of that Real Condition was conceived to be by Newton and other men of science, namely, that they conceived it as a coherent occupancy of space; both coherence and occupancy involving what we call Force, and Matter and Force being consequently conceived as inseparable elements composing one material and active reality.

You will remember that I did not attempt to furnish actual proof either of the reality of Matter in the full sense of the term *reality*, or of the truth of the Newtonian conception of it as involving Force. I contented myself with indicating the way in which, as I conceived, both points were capable of being proved, and giving some reasons for justifying my acceptance of them. More was not required for the purposes of that Address, nor would the occasion have permitted me to enter at length on so large an enquiry.

In philosophy, the reality of Matter in the full sense of the term *reality*, that is, as an efficient agent and real condition,* is open to an initial doubt, with which neither the physicist nor the geometer have any need to concern themselves. They deal with Matter and with

* For the distinctive meaning of these terms I may refer my hearers to my Address for 1883, *The Two Senses of Reality*, and more particularly to the Note bearing the same title, which is appended to my Address for 1886, *The Re-organization of Philosophy*.

Space as realities in precisely the same sense (whatever that may be) in which they are understood and accepted by everyday thought or as we may call it, pre-philosophic intelligence. They are in no way called upon to go behind the popular acceptance of their reality. But for the philosopher the case is different. He has to deal with Mind as well as Matter, and Mind has reality for everyday thought or pre-philosophic intelligence, in precisely the same way and to the same degree that Matter has. At this point it is, that the initial doubt I spoke of arises. For, as I said in the passage quoted from my last Address, if Mind is a reality, that is, a real existent in the full sense of real and efficient condition, and is justified as such by philosophy, then the very perception of Matter may turn out to be its creature, a consistent hallucination or idea, the laws of which are of quite different nature from those commonly understood as physical; and if so, the whole of our common-sense conception of the world we live in would undergo a radical alteration. An entirely new vista would then be opened for science, since all laws of Matter would then have to be subsumed under, or shown to be cases of, laws of Mind, and in consequence of this, all the positive physical sciences would become branches of the single science of Psychology.

Now pre-philosophic or common-sense thought has no inkling of this possibility. It accepts Mind as the immaterial and Matter as the material Reality, each governed by its own laws, psychical in the one, physical in the other; and probably for the most part imagines, that the immaterial reality has, at some remote but undefined epoch, created the material reality, and implanted in it those modes of action which result in what are called the Laws of Physical Nature. As to human minds, it holds, I presume, in the same undefined way, that they owe their nature and genesis, and the laws of their action, as immaterial realities, to the same creative source. Mysterious and indeed often wholly inscrutable as it confesses the nature and laws of Mind to be, and particularly so in that department of them which comprises the mutual action and re-action of Mind and Matter, yet of the real existence of an immaterial substance and agent common-sense thought entertains no doubt whatever. Something real and immaterial it considers there must be, though its ultimate nature may be an unrevealed secret. And there it is content to leave the whole question, or rather there and at that point the subject is frequently taken up by religious thought, diverse creeds are built upon the common basis of these meagre pre-philosophic conceptions, and in this way the interests of religion are often most needlessly enlisted against any attempt to analyse those facts of experience, of which these conceptions are the expression. But with this branch of the subject we are not now directly concerned.

The conception of Mind as an immaterial but substantive agent, or a reality in the full sense, is the root idea of what may be called one half of philosophy, if we take the contrasted conception of Matter as the root idea of the other half. Both conceptions are, as I have said, adopted with undoubting acceptance by common-sense thought; both are held by it to have the immediate evidence of consciousness or experience in their favour. Both conceptions therefore are proper and necessary subjects of philosophy, and among its most irrecusable *analysanda* or *explicanda*. To-night I have to attempt to do for the conception of Mind what last year I attempted to do for that of Matter, namely, show how philosophy goes to work in first analysing the percept of Mind, our supposed actual perception of it, and secondly testing its reality, as the agent upon which consciousness and perception themselves immediately depend, and exhibiting, if possible, its analysis or nature as such an agent. In every instance the method of philosophy is, first to ask *what* the subject in question is immediately perceived or known as, or *what* specifically it is which *we mean* by the name we give it, and then secondly (supposing we find a positive meaning under the name) to enquire how it comes to exist, and how it behaves as an existent, that is, in other words, what its nature is in its character of a real existent or real condition.

To begin with, there is a certain parallelism between the two things, Mind and Matter, in that the preliminary definitions of both are *that which* definitions. Matter, I said last year, is the *that which* is perceived in touching, seeing, and moving simultaneously. Similarly Mind may be preliminarily defined as the *that which* perceives or is conscious, that is, feels, thinks, and wills. Of this we seem to have an immediate perception, just as we seem at first sight to have an immediate perception of material objects, though this latter perception is afterwards broken up, as it were, by analysis, and shown to be not simple but complex, not an immediate perception of a single reality, but formed by associating the notices of two senses at least, when simultaneously exercised. In the case of Mind also we plainly seem to have an immediate perception of the *that which* feels, thinks, and wills, inasmuch as we identify it with our Self, not distinguishing it from the Ego, but speaking of it as *I* or *We*. *We* and our Mind are one; *we* and our Soul are one. Mind, Soul, and Self, are three names for the same thing in common-sense thought, as apparently an object of immediate consciousness or experience.

Such I take to be a true description of the experience common to everyone, which we call a perception of our own Mind or Self, as we not only find it previously to attempting an analysis of it, but also as it cleaves to us throughout life, even after analysis of it,

notwithstanding that we are then able to distinguish the concrete perception, which is the appearance, from the elements composing it, which are discerned by the analysis, and are the reality corresponding to the appearance. Now the first question proposed by philosophy, and which has to be answered by subjective or philosophic analysis, is this, Whether this experience really contains, as it appears to do, an immediate perception of the agent or substance designated Mind or Self, as the agent which feels, thinks, and wills, in processes of consciousness. There is no doubt that we have the common-sense experience I have described, as a common-sense experience. And, I may repeat, there is also no doubt, that we continue to have this same common-sense experience all our lives, whether we can give its philosophic analysis or not. This makes no difference whatever with regard to the common-sense experience, just as it makes no difference with regard to our common-sense experience, say for instance of water, whether we can or cannot give its chemical analysis into the two gases hydrogen and oxygen.

The first question which philosophy puts to every piece of experience is the question *What?* that is to say, What it is that we immediately experience therein, and what (if anything) we import by thought or imagination. Analysis has two things to do, first to discern what we immediately experience, secondly to discriminate this from what we mediate infer or imagine. Now just as in attentively looking at a building or a landscape, the first general impression gives place to a more accurate one, in which new details are discerned, and those first observed assume a new character, so also it is when we attentively observe any piece of experience whatever, even if it be what is called internal experience. The first impression does not change into something which is not experience, but into another experience differing from the first, and also more accurate in case we observe attentively, without allowing pre-conceived ideas to mix themselves with the phenomena observed. Careful analysis issues, not in adding, but in eliminating pre-conceived ideas from the experience analysed; just as in the case of the building or the landscape, the more closely we look, the less likely we are to think we see what really we only imagine. Thus the experience which was initially one becomes two, the same and not the same; there is a former and a latter state of the same experience. The term *experience* itself acquires a double meaning, experience before and experience after or in analysis; the former the source of common-sense conceptions, the latter of philosophic. It is not that philosophy discovers a hidden or noumenal reality behind phenomena, but that the reality which it discovers is a new and more accurate shape of the phenomena themselves. Thus it is that

an appeal to experience means one thing in common-sense thinking, and quite another thing in philosophic thinking, notwithstanding that no hidden or noumenal reality ever comes into view. When people appeal to intuition, it usually means that they have got to some phenomenon which they might, but do not choose to, analyse farther, and which therefore they take as ultimate; for if they meant simply what could not be analysed with their present method or present degree of effort, there would be no need of the special term *intuition* to describe the experience of it.

Now when we put the analytical question *What?* to the common-sense experience of the Mind or Self, which I have just described as a perception of the agent feeling, or thinking, or willing, we find in the first place, that it contains literally nothing which corresponds to the agent, the Mind or Self, which we seem at first sight to perceive immediately at work. We can assign no *whatness* to our supposed perception of it; that supposed perception has no positive content. The only experience we could possibly have of it would be self-consciousness. The self perceived in that consciousness must as a percept have a content, if it is really perceived at all; and yet when, by a further act of self-consciousness, we attentively scrutinise the supposed perception, we find a blank in the consciousness where the positive *whatness*, the *whatness* of the Self, should be. We never perceive what *we* are, who feel, or think, or will, apart or distinguishable in any way from the process-content of the feeling, thinking, or willing, of which we are supposed to be the Subject or Agent. We perceive a distinctive *character* in the process-contents which are most habitual; but we do not perceive the Subject as distinct from that habitual character.

Perhaps I may make my meaning clearer by referring to the contrasted case of Matter. In analysing our perception of material objects, which also seems, in common-sense experience, to be an immediate perception, we find that every part of the immediately perceived object, that is, every part of what in my last year's Address I called percept-Matter, is accounted for by some positive element in immediate perception, some mode or other of visual, tactual, or motor sensation. The *whatness* of percept-Matter consists of positive data. Not so with percept-Mind, if I may use the expression for what might be but is not. There is no percept-Mind. The place of Mind or Self, in the common-sense experience we are considering, is a blank, when that experience is analytically scrutinised. It wholly consists of process-contents of consciousness, in or among which nothing comes forward as the agent or Subject which has or experiences them.

It may be said, that neither in the case of material objects do we

immediately perceive the reality, or real Matter, which we represent as the real substance or agent impressing our sensibility, or which is the real condition of our perceiving the percept-Matter. This reality is represented only, is (rightly or wrongly) inferred, not immediately perceived. And this is quite true, but it does not touch the case of Mind. There is real percept-Matter, a positive complex perception, to go upon in the former case; there is the complex sensation of a visible, tangible, and resisting solid, which we repeat as a representation, and infer to exist as a reality, below the limits of our sensibility; there is no real percept-Mind, as a positive perception to go upon in the latter case; there is nothing upon which a representation or an inference (right or wrong) can be founded. It is the very premisses for inferring a real Mind that fail us, the very substance and content of the idea. In other words, Mind, Soul, Self, as objects of immediate perception, and therefore also as inferred realities, as these terms must be understood in philosophy (though not of course as objects of common-sense thought), are no more than empty names.

It is sometimes argued by those who are aware of the fatal blank in immediate perceptions where Mind or Self should be, in that common-sense experience which we call our perception of them, and who are yet unwilling to give up the psychical reality which the words express, and which they have come to regard as one of the ultimate bases of philosophy, and not the least important of them,—it is sometimes argued, that this blank in the perception is the very thing which from the nature of the case we ought to expect. They urge that the Entity, whose essential nature it is to be the Subject of feeling, thinking, and willing, cannot be expected to reveal itself in immediate experience as an Object, since it would thereby divest itself of its purely subjective character, and in fact would de-naturalise itself in the very act and instant of manifesting its peculiar capacities. But this contention, though highly ingenious, is liable to two most serious objections. First, it is a remarkable instance of making an Entity out of the purely abstract fact or moment of feeling, thinking, or willing. Secondly, the entity which it imagines is conceived as a reality, notwithstanding that objectivity, which in all other cases is essential to our conception of reality, is in its case admittedly impossible. It is in fact the object of a daring assumption. At the same time, since it is impossible to perceive an abstraction as an entity, and doubly impossible to do so, when that entity is of a kind incapable of objectivity, it is easy and plausible enough, when once we have imagined and assumed such an entity, to think of it as something which must necessarily remain transcendent, and be represented by a blank in immediate experience.

Now this doctrine plainly sacrifices the main point in the common-sense conception, which apparently it is devised to defend; it sacrifices the immediateness of the knowledge which common sense supposes us to have of the Subject of consciousness. It therefore stands, on this ground, in flat contradiction to the common-sense conception. But in fact it sacrifices much more, though it endeavours to hide the loss by an assumption. Along with that immediate knowledge it sacrifices the evidence for the real existence, as well as for the nature, of the Subject conceived as the special Subject of consciousness. For if, in the experience known as self-consciousness, we have literally no knowledge of a Self, we have no right to affirm its existence as a reality with positive functions; it is for knowledge a zero, with no positive attributes or predicates, and if, notwithstanding this, it is assumed as a reality, it can only be assumed as an unknowable Thing-in-itself, a prohibitive full stop to further knowledge. To take it, therefore, as the special Subject of consciousness, or to imagine it as of psychical nature, if the word *psychical* is to have any positive meaning, is self-contradictory. Common sense, which imagines itself to have an immediate perception of the Mind or Self, may, and indeed must, logically pretend to know, not only that it really exists, but also something of what is meant by terms like *mental*, *spiritual*, or *psychical*. It may be mistaken, but it is not illogical in those pretensions. But the transcendental psychologists who hold the theory just spoken of are in a very different case. They insist on the reality of a special Subject of consciousness, while abandoning the data from which alone the knowledge of it can be derived. They speak of it, in contradictory terms, as at once self-evident and unknowable. They continue to assume as an unknowable reality the object of a conception which they surrender as erroneous.

The common-sense conception that the universe consists of two great classes of entities, Persons and Things, Minds or Subjects and Matter or Objects,—a conception which confuses distinctions which belong to Knowing with distinctions which belong to Being or realities known,—is at the root of this transcendental theory. The theory assumes the truth of the confused common-sense conception, and then works it out to the contradictory conclusion which, owing to its confusion, it involves. It is not thus that the conceptions of common sense should be dealt with. The true philosophical method prescribes our approaching reality always from the side of knowledge, not by making an initial assumption concerning it. The distinction between Subject and Object is primarily a distinction within knowledge itself, that is, has its roots in the process-contents of consciousness as they are immediately known in consciousness, prior to any

question arising, or any knowledge being attained, of the Real Existents concerning which that consciousness, as it accumulates in memory and develops into a consistent experience, gives us knowledge. In its original or primary shape the distinction is not between Subject and Object as Real Existents, but between Subjective and Objective aspects of the process-contents of consciousness, prior to consciousness itself being distinguished from Real Existents, or Real Existents from consciousness.

The true way of dealing with common-sense conceptions such as those of Persons and Things, Subjects and Objects, Mind and Matter, is not first to assume that they are substantially true, and then endeavour to work them up into a consistent system, but to take them as they stand, and confront them with the phenomena or facts of experience, out of which they have been framed without the control of analysis. We thus set the true conceptions, by which I mean those which we form out of experience under the control of analysis, over against those which have grown up, and continue to grow up, out of the same experience, without being subjected to analytical control. The analysis moreover furnishes the means of explaining where and why the common-sense conceptions are faulty, where and why they are correct. Philosophy is thus nothing more than the careful re-thinking of the pre-philosophic thoughts, which we have either taken up from tradition, or have ourselves added, concerning the universe of things of which we are a part. Nor is there a thought or an imagination, concerning any portion of that universe, which can escape our analytical scrutiny. Thoughts which we are competent to frame we are also competent to repeat and analyse.

II.

With regard, then, to the first of the two main questions with which we have to deal, namely, what Mind is immediately perceived or known as, our answer must be purely negative. It is not immediately perceived or known at all. At first sight this negative answer to our first question would appear to involve an equally decided negative to the second, namely, whether a percept-Mind is a reality in the full sense of the term, and if so, what are its nature and functions, that is, the nature and functions of real Mind. For it might seem that about nothing no questions can be put; if there is no percept-Mind, there can be no reality corresponding to it, no real agent intended by it;—*cadit quæstio*.

But this would be treating the common-sense conception of Mind in the most unfair and unphilosophical manner. That conception is itself a part of our *explicandum*, that is, as much a part

of our subject-matter as are the phenomena or facts of experience out of which it is framed, and out of which we also in philosophy have to frame, if possible, some more valid conception, a conception in accordance with a more accurate analysis of the facts. Our analysis ought to afford us the means of explaining not only where and why the common-sense conception is faulty, but also where and why it is correct.

Now two points may be discerned in the common-sense conception of Mind; first, that there is an immediate perception of it, an idea which we have just seen to be faulty, and secondly, that what is so perceived is the real agent concerned in conscious processes; and the idea that conscious processes depend immediately upon some real agent, different from themselves, is undoubtedly correct. We shall see some of the grounds which justify this assertion as we proceed. Where the transcendental theory went wrong was, as we have seen, in assuming that this real agent, though of a special, that is, a psychical nature, must be transcendent and unknowable, because we have no immediate perception of it while actually at work. This assumption is shown to be wrong by the contradiction in which it involves us; and fortunately so, since, had it been correct, it would have closed the door against all further knowledge, by the inscrutable nature of the real agent which by its hypothesis it sets up. The nature of the real agent in conscious processes being assumed to be unknowable, its existence remaining unquestioned as before, there would have been a gulf between the operations of that agent on the one hand and their dependent consequences, the processes of consciousness, on the other. The connection between cause and effect (to use the common-sense but familiar terms), which it is the aim of all sciences, and therefore of psychology, to ascertain, would have been held, and with truth, to be as unknowable as the nature of the cause, the real but transcendent agent.

Avoiding, then, both the pitfall of the transcendental psychologists, and the common-sense idea, that we have an immediate perception of Mind as the agent in conscious processes, let us look for a moment at the other point involved in the common-sense conception, namely, that some real agent, different from consciousness itself, is concerned in initiating and maintaining consciousness, in its three departments of feeling, thinking, and willing. It remains to consider this idea in the light of the two requirements which we have just ascertained, namely, first, that we must have some positive perception or knowledge of the agent in question, without which it would be to us a mere word, and secondly, that our knowledge of it as the agent immediately concerned in consciousness must be an inference and not an immediate perception.

I hope I have succeeded in making clear to you the necessity of these two requirements, and how inevitably they spring from confronting the common-sense conception of mind as the agent in consciousness with the facts of experience, the process-contents of consciousness in feeling, thinking, and willing, which on a careful scrutiny are found to yield no immediate perception of the agent. To perceive clearly that, if we are to attain any knowledge of the real agency concerned in consciousness, we must have some positive and independent knowledge of what we afterwards infer to be the agent, independently I mean of any conscious processes which reveal it in the character of the agent immediately, and therefore also that our knowledge of it in that character, or as the agent in consciousness, must be mediate knowledge, gained by way of inference, not of immediate perception, is essential to the further consideration of the question. I make, therefore, no apology for thus repeating, as I have done, the two requirements, though I fear at the risk of wearying you.

There is another point also to which I should like to call your attention before going farther, a point which may serve still more clearly to mark progress, and cast a ray of light both over the obscure path we have been treading hitherto, and over that part of the course which we have yet to run. The point is this. The correction we have now made in the common-sense conception of Mind entirely alters the face and disposition, so to speak, of the whole subject-matter, and brings it into harmony with the principles of philosophical method. I mean that, whereas we began with enquiring into the nature of an assumed real agent, Mind, assumed to exist as a reality by the common-sense conception of it, we now, from our present starting point onwards, begin with conscious processes, or process-contents of consciousness, immediate to perception, process-contents which fall under the three heads of feeling, thinking, and willing, and then proceed to enquire into their genesis and governance, that is, into the nature of the real agency upon which they depend. In doing this we first attempt to ascertain, by analysis of the process-contents of consciousness, the meaning of all such terms as Reality, Real Existent, Agent, Subject, Object, Condition, Dependence, and so on, before proceeding to select by hypothesis any object or set of objects, as the real agent upon which consciousness most probably depends for its existence and maintenance. We are thus in the broad highway of philosophical method.

Of course I do not mean that I am going to lay before you the analysis of the string of terms which I have enumerated. That would be to enter upon a whole course of philosophy. I mean merely to indicate the nature and method of the work, which would have to

be done by any one attempting to frame a satisfactory theory of the real agent and agency concerned in conscious processes, and to show that, by correcting, as we have done, the common-sense conception of Mind, we have put the enquiry which that conception initiates, but initiates by an assumption, upon a sound philosophical footing. A few general considerations bearing on this great theme are all that I can hope to offer you this evening.

In the first place, then, I would remark, that the enquiry into the real agent and agency concerned in conscious processes is strictly and properly a psychological, not a philosophical enquiry; just the same in this respect as the enquiry into the nature of Mind, which is initiated by the assumption involved in the common-sense conception of it. Both alike are psychological. The new footing upon which we have put the latter enquiry makes no change in the department of scientific knowledge to which it belongs. What we have now done is simply to show that, as a psychological enquiry, it pre-supposes and depends upon a preliminary survey and analysis of the whole field of consciousness or experience by philosophical methods, that in short it can only be satisfactorily pursued in dependence upon the results of a purely subjective and philosophical analysis.

This I dare say several of those who hear me will recognise as an often repeated doctrine of mine, and will perhaps be mentally crying *crambe repetita*. The fact of the matter is, that the distinctive and cardinal conceptions, upon which philosophy is organised, are so few and at the same time so closely bound up with the whole subject, that we are constantly coming upon one or other of them from the most different quarters. The doctrine that psychology pre-supposes philosophy does nothing more than express the value of the fact that, in all systematic knowledge, the study of the *what*, that is, the meaning of any term for consciousness, takes precedence of all other questions concerning the object named by that term.

The next effect of this change of footing which I have to remark is the following. In consequence of thus distinguishing the provinces of philosophy and psychology, both lines of thought are lifted once for all out of the region of a crude anthropomorphism, which sees in the universe a man making a world, and we are enabled to see in man and his world a special case of larger agencies and laws, the infinite whole of which, including its enclave or special case, we name the universe. I will try briefly to state how this is brought about. In thought, and therefore in philosophy, we never get beyond consciousness, we always ask what things are *known as*, that is, what they are for consciousness; when we speak of anything as in itself, or as out of, beyond, or existing independently of consciousness, it is always thought or consciousness which so represents it, and as it were

throws it out of itself; so that we retain it in consciousness in the very act of thinking of it as excluded from consciousness. Philosophy may be said to begin, or have one of its beginnings, in consciously recognising this fact. But what is the consequence? Plainly this, that in the meaning of the term *consciousness* itself two senses must be distinguished, two aspects of consciousness. There is first that sense of the term, or aspect of the thing, in which it is all-embracing, and in which it is a knowing, a process-content, and nothing more, the subjective aspect of the infinite universe. There is secondly the sense of the term, or aspect of the thing, in which it is a particular existent, the consciousness belonging to this or that individual, having countless other things outside and independent of it, and outside and independent of countless other things, of all other things in fact except the organism to which it belongs, and the forces with which that organism comes into contact. And these two senses or two aspects are not two consciousnesses but one. One and the same particular individual consciousness, or consciousness as an existent, has also the other sense or aspect in which it is all-embracing, in which it is simply a knowing; and both aspects of consciousness are objective to consciousness itself, which is a process of perpetual self-objectification.

Now this distinction within consciousness itself is wholly alien from, and unrecognised by, the common-sense conception of Mind, in which conception both members of it, both aspects of consciousness, are taken confusedly together, undistinguished from each other. And yet, at the same time, consciousness is common ground, is the common subject-matter, of both philosophy and psychology. To recognise this necessary distinction between the two senses or aspects of consciousness, and to refer the investigation of them severally to two distinct departments of thought, is for the first time to draw the true fundamental line of demarcation between philosophy and psychology, and to place both departments upon their really natural and logical foundation. To philosophy belongs the entire range of consciousness in its *whatness* or as a knowing, that is to say, the whole content of the sentient, emotional, imaginative, intellectual, volitional life of man, his moral, æsthetic, and religious, as well as his perceptual and cognitive endowment; to psychology the analysis, classification, and comparative estimate of all feelings and ideas, as well in respect of their value and dignity in a moral, as of their truth in a speculative, point of view, his theories as to his own place in nature, and of the world's place in the universe, his hopes and fears for eternity, the governance of his life here, the possibility of another life hereafter. To psychology belongs the investigation of the laws which govern the genesis of consciousness as an existent,

the actual origination and concatenation of those processes of consciousness, the content of which assumes all those varied shapes and forms which I have enumerated as constituting its *whatness*, laws which formulate the manner of their dependence upon the real agency, which lies hidden somewhere or other within the individual organism.

You will, I think, see at once what a radical change this redistribution of the subject-matter of philosophy and psychology makes in the importance to be attributed to the common-sense conception of Mind. Prior to the redistribution, that conception cannot fail to be regarded as one of the great corner stones of philosophy, being, as it then is, the philosophical expression for the reality of reason and moral purpose, where these are the most indisputably demonstrable. In this view the supposed psychical or spiritual agency of Mind is a tenet to be fought for, lived for, died for, as something essential and indispensable to the moral, intellectual, and religious nature of man, the Divine principle within him, robbed of which (supposing it were possible) he would become a clod, and the universe itself be in reality no more than a dull mass of blind and aimless mechanism. For where in the whole universe could the principle of a moral and intellectual life be found, if it were not found in man, the crown and flower of the visible creation? Everything of value in philosophy seems bound up with the truth of the doctrine, that we have an immediate perception of the psychical or spiritual nature of Mind, as contradistinguished from Matter with its merely mechanical laws, so long as we fail to see the true logical connection between the questions of *whatness* and of *genesis*, and consequently fail to bring psychology into its true relation of dependence on philosophy.

But from the moment that this relation is perceived and this change made, the whole scene alters, and psychological doctrines as to the nature of the agent in consciousness, and the common-sense conception of Mind among them, lose their sometime importance. It matters nothing, except from the point of view of positive science, and of philosophy so far as it stands in relation to it, what the agent, what the mechanism, may be, upon which conscious processes depend, when once the whole value of conscious life in all its departments is admitted to consist in the *whatness* or nature of its content as consciousness, and the analysis and estimate of that nature are transferred to the domain of philosophy. I mean that, except for the reservation just stated, it makes literally no difference to any moral or intellectual interest of man, whether conscious processes depend immediately upon a material brain or upon an immaterial *Psyche*. The value of his consciousness lies in what it is, not in that upon

which it depends; and the value of that upon which it depends is a value reflected back upon it from its connection with the consciousness, which depends upon it for its existence. The *nature* of consciousness is literally unquestionable and ultimate, as I tried to make evident in my last year's Address (*Proceedings*, Vol. ii, No. 1, Part I, p. 20); that is to say, in other words, the distinction between *nature* and *genesis* applies to the whole and every part of it, and no *genesis* of its nature can be assigned, or even be conceived as possible.

At the same time the reservation, "except from the point of view of positive science, and of philosophy so far as it stands in relation to it," is a very important one. But here the advantage is entirely on the side of a material as against an immaterial agent. As regards positive science, the science of psychology, the advantage is obvious. An immaterial agent is for us a mere name, and cannot be construed to positive thought. It affords literally no foothold to speculation, no material for observation, experiment, or hypothesis. Physiological psychology on the other hand possesses in neural substance, and the physical forces to which it is subject, abundant material for positive investigation in all these ways. It is a branch of science in which result after result is being daily obtained and registered.

Again as regards philosophy in relation to science, that is, as making with mathematical, physical, and psychological science one complete system of human knowledge, the service rendered by the conception of a material agent of consciousness is conspicuous and undeniable. A material agent of consciousness preserves, an immaterial agent breaks, that unity in the frame and constitution of the positively known or knowable world, which, wherever it can be discovered or legitimately inferred, is justly dear to the logical instincts of mankind. The disappearance of an immaterial Mind from the scene of reality would be the disappearance of a heterogeneous element, the existence of which would be as difficult to account for, as its nature is difficult to conceive. To be able frankly to dismiss it as a fiction would be a great relief. The mystery of Matter would then alone remain insoluble; one mystery in place of the two, which now baffle the powers of human insight.

And is it not a fiction? Is it not a replica, painted by the imagination uncontrolled by the criticism of subjective analysis, of the concrete human being, constituted as he is of two component parts, heterogeneous, but intimately united, his material organism and his immaterial consciousness? Consciousness is what is really immaterial in man, his feelings, thoughts, volitions; his consciousness including all its process-contents. To this immaterial component he erroneously attributes agency, because in imaginative thinking he frames purposes and foresees results, before he realises them in action; and thus an

initiative, a power of originating action, seems to him to reside in the forecasting consciousness. But the logically prior ideas of agent and agency,—whence come they? The idea of agent can come only from his experience of his own organism in contact with bodies external to it; that of agency only from this experience in conjunction with the sense of effort or strain, which he feels in handling them and in resisting their impact. Thus, from both components of himself as a concrete conscious agent, he takes features which he then attributes to one of them, his consciousness, alone, and imagines it as a real agent, a body within his visible and tangible body, conscious of purpose and initiating action. In the early periods of human history, he appears to have identified this inner man, or imagined agent, sometimes with the breath, sometimes with the blood. And the course of thinking upon which he thus enters, if allowed to continue uncriticised and uncorrected, finds its only possible culmination and conclusion in the idea, that the real agent must be in itself something transcendent and unknowable.

III.

Many people seem to have a holy horror of what they call robbing the world of its mystery. But I think that what they really mean to denounce is forgetfulness of its mystery, or paying such exclusive attention to what is not mysterious as to ignore the mystery which really encompasses it, and sometimes even to deride those who would press the fact upon their notice. If this is really their meaning, I confess that I entirely concur with them. The fact, that for human intelligence *omnia exeunt in mysterium*, is a fact of experience as certain as any fact can be, and one which is of the first importance in all philosophical speculation. But mystery is of no value for its own sake. To the eye of Omniscience no mystery exists. Mystery is the name for the necessary limitations of a finite intelligence.

If the views which I have just laid before you are correct, there is one ultimate limitation, one ultimate mystery for mankind, under which all others, which belong to the Order of Genesis, may be brought, the existence of Matter, the origination and maintenance of the Material World. This is just the same result to which I came in my last year's Address; only that this year I have approached the same great theme from the side of Mind. Of these two great common-sense or pre-philosophic ideas, Matter I then tried to show you was a reality, Mind I have now tried to show you is a fiction, and unreal. In philosophy we start with an abundance of common-sense ideas, which are the shape into which all our pre-philosophic experience has been cast, the form in which it exists for us, in

consequence of the unwatched operations of the neural mechanism which is its source of supply. Awakening to philosophy, or beginning to philosophise, means beginning to watch the process-contents of consciousness as they stream in from this source. We are then watching experience as it actually occurs to us, instead of merely watching, as before, the familiar forms of it which in its unwatched periods it has already assumed.

Some of the more constant and deeply rooted among these forms, when they are of an abstract character, are what are called *a priori* forms or ideas. On the transcendental theory of Mind they are the modes in which the transcendent Subject operates upon whatever material is furnished it from elsewhere, or possibly from itself in another capacity. Others of the more constant forms belonging to the unwatched period, which are concrete, that is to say, picturable each for itself as a more or less complex whole, are fixed ideas or opinions, or literally prejudices in the strict sense of that term. Others again there are which, though modifiable on more searching reconsideration, are such as to turn out in the main correct; that is, they will be found warranted by future experience, when most accurately watched. Nor have we, ultimately and in the long run, any other standard of truth than this,—the verdict of a carefully watched experience. In this sense I would be understood when I say, as I have said so often, that common-sense experience is the *explicandum* of philosophy. In philosophy we watch experience as it actually occurs, and in so doing analyse and explain the forms it has already assumed, replacing them by, or modifying them into, other forms, which again in their turn await their verification or dismissal by the same process.

It is only the distinct consciousness and formulation of this process, as the one essential process in philosophising, that are in any way new. The process itself may be traced as a method of thinking in the writings of all genuine philosophers which have come down to us. The course of its development is the true course of philosophical development itself, evidenced from stage to stage of it by the systems or theories which philosophers have propounded, and in which an increasing preponderance of the subjective aspect is clearly discernible, as well as a more distinctly marked antithesis between the two aspects, subjective and objective. It is only very gradually that the thought and speculation of philosophers influence and modify the conceptions of common-sense or everyday thinking; and the influence which they do exert resides far more in the frank and full exhibition of their ways and methods of thinking, than in the systems in which they attempt to embody their results. It is this character of laying bare the working of the mind, in grappling with thoughts, which

renders the writings of the great masters of thought perennially instructive, and quickens them with an everlasting freshness. The interest lies in the *Sic cogitabat*.

As philosophers stand to the world at large, so in the individual philosopher, the philosophic period of his own life, and the thoughts which belong to it, stand to the pre-philosophic period and its ideas, which of course continue to exist, though subjected to a modifying process, side by side with those which belong to his philosophic life. When the philosophic epoch dawns for any man, he begins to be aware of the discrepancy between the world as it is seen in everyday or common-sense conceptions, and the world as he is beginning to see it in the light of analysis. The pre-philosophic world loses its unique and absolute character; the philosophic world shines, as it were, more and more clearly through it; and his task is to reduce the newly-dawning world of analysis to a system consistent in itself, and to harmonise it part for part with the common-sense conceptions which are still dominant around him. Hume was a great philosophical sceptic just because, while clearly seeing the difference between the two worlds, he never succeeded in systematising his philosophic world, and therefore still less in bringing it into harmony with the pre-philosophic world of daily life. He had nothing wherewith to replace its lost absoluteness.

If these views are in the main correct, and they are the best I have to lay before you, it follows that it is a great mistake, and in fact one of the illusions of common-sense thinking, to suppose, that what philosophy professes or attempts to do, is to discover the ultimate real essence of the Universe, or of Matter, or of Mind, or of the Causal Nexus or Efficiency, or of anything else taken as a real existent or objective reality, in the absolutist sense of common-sense thinking. What it does attempt to do is to discover the simplest, most accurate, and therefore the ultimate way in which we must think of the things which are called by these common-sense names, and thought of under these common-sense conceptions. The ultimates at which it endeavours and hopes to arrive are ultimates in knowledge, the ultimate elements, laws, and results of human thought and experience. Philosophy, in showing the falsity of that absolute character which attaches to all common-sense conceptions, cannot logically set up other absolute conceptions in their place, since its main and distinctive contention is, that Realities are known solely and alone through the experience we have and the conceptions we form of them, and not as if we had an *a priori* knowledge with which we could compare the knowledge gained by experience, Existence itself being objective to consciousness in its wide sense of a knowing, even when it is thought of as independent of consciousness.

Although, therefore, the whole work and intercourse of the world is carried on, and necessarily so, on the basis of common-sense conceptions, yet common-sense thinking never comes into collision with philosophy, unless it sets up a claim to be itself philosophy, by taking one or more of its unanalysed conceptions as the foundation on which to build a theory of existence. The motive for doing so is usually either of a theological or of an anti-theological character, not drawn simply and solely from the desire of knowledge. Some positive conception of the nature of the infinite universe, a conception which may be made to cover its unknown as well as its positively known or knowable region, seems eminently desirable to all who have a specific practical view of life to cherish and inculcate, whether that view be optimist or pessimist, or, as I said before, of a theological or anti-theological kind. The common-sense conception which most readily presents itself to advocates of the former class is the conception of Mind; to advocates of the latter class it is that of Matter, the existence of which they endeavour to represent as commensurate with our ideas of infinity and eternity. I hazarded some criticism of this endeavour in my last year's Address. The whole of my Address to-night may be considered as in some sort a criticism of the corresponding endeavour in the case of Mind.

But there is still a final word to say concerning this latter conception. It is true that it has no pretension to philosophic or speculative validity. But I think it has been shown, in touching upon the way in which the conception of Mind was most probably formed, namely, as a sort of replica of the whole man, that there is something real in the phenomena of conscious life, which at present has no single name, and for which I now add, that we may usefully borrow the name *Mind*, seeing, or perhaps I should say assuming, that this term has now lost its own original and specific meaning. Understanding it, then, in a more general sense, that is, without taking it to imply anything at all as to the intrinsic nature of that to which it is applied, we may now use it to designate the proximate Real Condition of consciousness, whatever the specific and intrinsic nature of that condition may be, or whatever differences of intrinsic nature it may include and cover. In thus defining the term we set it free from its former specific antagonism to Matter, and at the same time obtain for it a range of applicability which is commensurate with that of consciousness itself.

The conception of a Real Condition of consciousness is yielded, independently of the specific conception of Mind, by the philosophical analysis of the concrete conscious being. It may also be regarded as a modification of the common-sense conception of Mind, effected by simply dropping out of that conception the assumption of a speci-

fically immaterial or psychical character in the agent. Thus the only meaning which the term *Mind* can legitimately retain is drawn from the relation in which it stands to consciousness. And this meaning I think the word may usefully continue to bear, as a single word equivalent to its proposed definition, proximate Real Condition of consciousness.

Taken in this general and legitimate sense, the term *Mind* becomes applicable, not only to the agent which is immediately operative in human consciousness, but also to the infinite and eternal, though to us positively and intrinsically unknown Power, which sustains and serves to actualise consciousness in its whole nature and extent, as neural substance sustains and actualises consciousness in ourselves, seeing that the whole meaning of the term is now drawn from the relation which this agent bears to consciousness, and its whole value conceived as reflected back upon it from the consciousness which it sustains.

In thinking at all of the infinite and unknown universe beyond the range of our positive knowledge, limited as that is by the capacities of our organism, it is impossible to avoid a certain anthropomorphism, though it is of a very different kind from that which I described above as seeing in the universe a man making a world. As human beings, all our thoughts of the unknown must be expressed in terms of human knowledge, in order merely to be intelligible to our own consciousness. From this kind of anthropomorphism in thinking of the unknown it is impossible for us to escape. Our very conceptions of Existence, of Reality, of Power, are human conceptions. But the way to deal with this necessity, seeing that we cannot but be subject to it, is, if I may say so, to render ourselves distinctly aware of it, aware that even our most general terms are drawn from our perceptions of what is within, though applied to realise in thought what is beyond, the positively knowable region. In this way we come to see that there are certain things which we must think concerning that unknown region, and which we hold fast in thought with deeper conviction, the more anxiously we examine and test them, thoughts which thus seem bound up with the very texture and mechanism of rational and conscious life. Among these I count the thought, that in the unknown region there are modes of consciousness better, nobler, more glorious, than any that human thought can realise, though akin to those which human thought calls by names like these, and like them dependent upon the eternal Power, by which the whole universe is sustained.

THE NATURE OF FORCE AND MATTER.

By R. J. RYLE, M.A.

If there is one difficulty which makes itself felt more than another in the discussion of such a problem as that of the nature of Force and Matter (for I do not think that the two can be fairly considered apart), it is this. We all honestly wish to start from the same point, the fixed point of familiar experience, but for each of us the starting point is not quite that of our fellow-students.

For each of us the object of examination is, as our President remarked in his address last session, "the *that which* all men perceive in touching, seeing and moving"; and yet nothing is more certain than that this "that which" becomes for each student a quite peculiar object in the very first handling by which he begins the work of examination. As in the chemical analysis of a new body the order in which the reagents are used and the separations effected is of importance for our determination of its composition, so in answering the question of the nature of the "that which" we perceive in touching, seeing, and moving we cannot avoid the deliverance of different answers if we differ about the nature of cognition generally. To state the problem broadly, Does our knowledge adapt itself to the objects of knowledge? or do objects adapt themselves to the nature of our cognition? or, yet again, how far can we carry out a separation of a "that which all men perceive" from their perception of it?

When, therefore, our President in his address of last year speaks of Matter "as a reality which he assumes that his hearers accept in the same full sense in which it is accepted by common sense and by science" it is impossible not to feel that all will now turn (1) upon what we are to suppose is involved by the acceptance on the part of common sense and science of Matter as a reality, and (2) upon whether we allow that this reality is all that can be meant by the word real when we talk about the reality of Force and Matter. Upon these questions we might collect a variety of replies, all illustrating the fact that any philosophical theory as to Matter and Force is but a part of a philosophical theory as to the conditions and contents of human knowledge. For one example of such replies let me remind you of the view taken by the President in his address.

Upon the lines there laid down we have to regard Matter as something the *existence* of which is known to us as a percept, but the *reality* of which is an inference founded upon the percept (p. 5).

This percept is the product of associative and combining processes, and it is the reality of *this percept* which is assumed as science and common sense assume it.

But in addition to its reality as percept, which suffices for common sense and science, Matter has another mode of existence upon the President's view. Under this aspect Matter is regarded as a reality which is independent of the very existence of perceiving consciousness. In this character it is said to be known to be (essentially) active occupancy of Space. Thus Matter is a twofold object. It is a perceived object of consciousness on the one hand, but it is on the other a self-existing something inferred and not directly perceived. It is even to be regarded as itself the real condition of consciousness, and it is said in its turn to be dependent upon some continually operative and eternal real condition other than itself.

For the sake of contrast let us call to mind the well-known doctrine of Mr. Mill concerning the Reality of Matter and what is meant by it. According to Mill, in the language of his oft-quoted sentence, "Matter may be defined as a permanent possibility of sensation." Sensation, he tells us is the original foundation. But finding that our cornfields ripen whether we are present or absent, and that our fires go out whether we are asleep or awake, *these sensations* (by which word I presume he would signify the sensations which are the basis of our perceptions of cornfields and so on)—these sensations soon come to be looked upon as a sort of accident depending on us, and the possibilities as much more real than the actual sensations, nay, as the very realities of which these are only the representations, appearances or effects.

Mr. Mill, it may be remarked, is careful to distinguish between what he calls our idea of Substance or Matter, and that of our Sensations; and he points out that it is not the possibility of Sensation or the character of Sensation, but the *Permanence* of the possibility of Sensation which mainly distinguishes our idea of Matter from that of Sensation.

Between Mr. Mill's view of Matter and that which was worked out by the President with great fulness in his address there are some sufficiently striking points of difference. We might almost say that for Mr. Mill, Matter is not Matter unless it can come into Sensation, and that for the President it is not Matter unless it can both come into Sensation and go out of Sensation; for, to Mr. Shadworth Hodgson "the *Reality* of the Percept Matter means its non-dependence upon our sensitiveness," while Mr. Mill admits no sort of Reality for Matter but that which is constituted by its possibility of being felt.

I think, however, that there is a point of agreement between the

two which is even more noteworthy, and that without misrepresenting the position of either it may be said that they agree in not taking into account the presence of any *a priori* factor or factors in our *knowledge* of Matter. To our President I believe that the assumption of any such elements appears to be a mere German fiction, and to Mill the supposition that any such element of knowledge could remain unexplained by association was one to be rejected at once.

The view elaborated by the President, however, must necessarily be unacceptable to many whose general position differs from his, and I must confess that it seems to me to be encompassed with many serious difficulties. The relation of the percept Matter of science and common sense to the Real Matter of Philosophy does not seem to me clearly comprehensible, and the qualities with which Real Matter is said to be endowed, as a being apart from and independent of human cognitive faculties, appear to me to be surreptitiously (if I may be allowed the expression) transferred from the realm of perception to a supposed realm outside it. Any attempted criticism, however, of the view of Matter expounded in this address would be unjust which should not begin with an examination of the views of Space and Time which assuredly form the foundation of them; and my present difference is, therefore, not with the President's view of Real Matter, but with the doctrine which forms the first step only in Mr. Shadworth Hodgson's discussion, and both the first and last step in Mr. Mill's, the doctrine, namely that "for common sense and science" a perfected or completed perception of Matter is attainable merely means by association or by the compounding of the various sensations afforded us by our several organs of Sense. Now common sense and science are but names for experience in its rough and ready everyday shape, and for experience in its systematic and exact form; and I contend that neither under the one nor under the other aspect is experience possible without the use (explicit or implicit) of certain conceptions or modes of *a priori* mental synthesis. We may not, perhaps, assume the validity of the entire Kantian theory of the Categories but as it seems to me if we are to describe correctly the constituents which are essential to the elaboration of completed perception we cannot deny their principle or avoid their employment. If we are dealing with actual knowledge—with the sciences—and are forming objectively valid judgments, not merely dreaming. If there is such a thing for us as Nature in which phenomena form a systematic whole of experience it is because the multitudinous aggregate of sensuous percepts has been subjected to a process which is not either association or deliberate arrangement. And this process

speaking generally is that which Kant describes in the *Transcendental Analytic*. And, further, the conceptions, under which our understanding "subsumes" sense percepts in the formation of perfected perception or experience cannot be fairly described as Hypotheses. A Hypothesis is a "*may be*," but the connection here referred to is necessary and universal. The conceptions are unavoidable if we are to have an object at all to think. Accordingly it is surely incorrect to speak, as Professor Huxley did a few years back in a very interesting lecture upon the Sense Organs, of the Hypothetical Substance of Matter, and the Hypothetical Substance of Mind. Both common sense and science find themselves confronted on every occasion by a manifold of sensations and neither common sense or science would have what the President has called a "that which" to deal with at all if it were not for such categories as substance, causality, and the like.

If, then, we may be allowed to assume for the present occasion that there are categories which are as truly conditions of our thought, if there is to be such a thing as experience, as space and time are of our sensuous intuition, we may proceed to formulate some general view of Force and Matter in accordance with this doctrine as to the nature of our experience.

One indispensable condition at any rate must be satisfied by any completed perception of Matter, whether for common sense or for science.

We must have Intuition in Space. And in the second place, in so far as any such conceptions as "Substance" or "Causality" occur at all in the analysis of our experience, these conceptions must be taken merely as standing for the spelling out of phenomena. We must not, as Kant puts it, build by the side of the house of experience a more imposing wing filled with sheer essences of thought. That is to say, we must not consistently with this standpoint allow ourselves to carry such conceptions as Substance or Action into any ultra-phenomenal region.

Now experience is not for us a stationary panorama, but it is a continual happening of events. And for our experience events mean the following in time of one phenomenon upon another in such a manner that a preceding phenomenon is the condition upon which a succeeding event necessarily ensues, the relation so constituted being that which we express by the terms cause and effect. The conception (of constant use in all the sciences) expressed by the word *action*, is a derivative from that of causality, and in what may be called expressly the *physical* sciences, the word Force may be taken to be a more specific derivative from the general conception. Proceeding upon the same lines, the conception of activity or force leads

to that of a permanent something which acts or is acted on, since we cannot have a change or mode of existence which is at one time different from that which has been at another without a persistent something which presents different appearances without ceasing to be. If changes were not differing modes of the same permanent Substance they would be successive comings into being and annihilations. Thus the fact of change upon this view of the nature of experience indicates the corresponding presence of something permanent as the basis of its possibility.

Intuition allows us in the case of phenomena which occur in Space to deal with place and change of place, and to formulate laws of such changes in accordance with the conditions which the formal conditions of our sensibility prescribe. The subsumption or connection of these presentations of the external sense under certain definite conceptions yields the completed perceptions or elements of knowledge, out of which the fabrics of the various sciences is built up.

From this point of view, we may say, Matter and Force are the language of the Physicist for such phenomena as occur in Space, and are connected in the genesis of objective knowledge by the conceptions of substance, causality, community, and the like. And the changes, the knowledge of which implies such conceptions, are for the Physicist summed up (speaking generally) in laws of Motion. The *object* of the study of the Physicist (Matter being the term by which he expresses the fact that he is dealing with the presentations of external sense) may then be said, when the analysis of experience is in question, to be "the permanent in space which is the subject of changes determined for our apprehension by the rule of causality among phenomena."

Thus far the limits to our knowledge of the Nature of Matter and Force appear to coincide with those which define the general boundary of experience, and nothing has been said about "Real Matter as a thing in itself which manifests itself as phenomenon in Matter as Percept." I do not know which of the Germans may have been guilty of giving this account of Real Matter.

But since Kant is more directly responsible for the "thing in itself" than any other German, it is only fair to remark that he, at any rate, does not identify "Real Matter" with "the thing in itself." Whatever variations there are in his doctrine of a thing in itself, and however decided the inconsistencies which have been pointed out in that doctrine, he never seems to have identified the Reality of Matter with *it*. "In our system, he says (in the *Transcendental Dialectic*), external things, that is, matter in all its shapes and changes, are nothing but mere phenomena, that is, representations within us, of the reality of which we are immediately conscious" (Max Müller's

Transl., p. 322), and even in the passages in which he speaks of "Matter as a mode of representation of an unknown object," he never speaks of the latter as in any way to be regarded as "Real Matter." As he says in the *Trans. Analytic*, "Matter is substantive phenomenon. What may belong to it internally I seek for in all parts of Space occupied by it, and in all effects produced by it, all of which, however, can be phenomena of the external sense only."

But to return to the subject of Matter and Force. Whatever differences there may have been among Physicists of past days as to the limits of a mechanical theory of the Physical Universe, there has been an increasing convergence of opinion in recent times towards the belief that ultimately all the laws of all the physical sciences will be found to admit of expression in terms of Motion. In this respect the detailed investigations of scientific workers in various fields entirely bears out the generalisation of Kant more than a century ago, viz., "The Understanding leads all other predicates pertaining to the nature of Matter back to this, and thus Natural Science is throughout either a pure or applied doctrine of Motion."

But science is nothing if not progressive; and one peculiarity of its progress is the necessity laid upon it of casting off from time to time conceptions and items of terminology which, after being for a longer or shorter period of real service, have at last ceased to be any longer adequate expressions of new knowledge.

It therefore becomes of interest to inquire what it is exactly which *Science* means by Motion and by Force, and how far it is possible to accept the views of science as applicable to experience in the concrete. The question seems to be of some general importance because of its bearing upon the relative spheres of Philosophy and Science, and of some particular importance because of the increasing range of scientific territory which is being steadily brought within the scope of *Kinematics*; "in which the motion of a system is studied geometrically without taking into account any of the conditions of Motion which arise from the Mutual Action between bodies" (Clerk Maxwell). The desire, which is thoroughly distinctive of good science, to purge itself of all conceptions which are not purely expressions of scientific fact, leads the Kinematic Scientist to scan very critically the old familiar materials of Dynamics and Mechanics, "bodies" occupying space, bodies in Motion, and Force acting on "bodies." But perhaps there may be at present some ground for calling to mind the proverb which bids us to be careful lest in our great haste to empty the bath we pour away the baby too. The tendency to which I am here referring, as bringing into prominence the question as to how far the views of Science are applicable to

experience in the concrete I can best illustrate by reference to Professor Pearson's *Grammar of Science*. In this very suggestive work Professor Pearson adopts the view [that the "Motion of bodies" is not a reality of perception, but is the conceptual manner in which we represent the mode of perception which consists in the combination of Space with Time, by which mode we describe changes in groups of sense impressions; the perceptual reality is the complexity and variety of sense impressions.

. . . . The whole object of physical science is the discovery of ideal elementary Motions which will enable us to describe in the simplest language the widest ranges of phenomena; And he goes on to say:—Startling as it may appear, it is nevertheless true that the mind struggles in vain to clearly realise the motion of anything which is neither a geometrical point nor a body bounded by continuous surfaces; the mind rebels against the notion of anything moving but these conceptual creations, which are unrealisable in the field of perception.]

Now I must confess that in this very idealist view of the problem of Motion which has been worked out by Professor Pearson in a most interesting way there are some preliminary difficulties concerning the use of the term sense impressions and concerning the possibility of speaking of changes in groups of sense impressions as occurring in any other way but in time.

But the question which I am here more particularly engaged with is as to the propriety of calling our geometric Kinematic schemes *descriptions of experience*. Our systems of ideal elementary motions undoubtedly enable us to deal with, but I do not think we can truly say they enable us to *describe* wide ranges of phenomena without considerably qualifying the word "to describe." Thus, when we say that the mind cannot realize the motion of anything which is not a geometrical point, and so on, our remark is only true if we rigidly exclude any but the geometrician's view of Motion as inconceivable.

But as Kant points out in his *Metaphysical Foundations of Physical Science* we cannot take Motion to mean simply change of place in the accepted sense of geometry unless we add that our moveable is a point or is to be imagined to be such for the special purpose in hand. In speaking of the place of the Moon, for instance, we expressly suppose ourselves to be concerned only with the moon's centre, but this purely artificial simplification must be summarily discarded if we are to deal with the object as it is presented to us as a whole in experience with all its phenomena of rotation, perturbation, and so on, thrown in.

For Motion as ideally conceived, Professor Pearson's view, no doubt, is true, but because it is conceptual in character it is inappro-

pritate to the field of sensible reality. Hence we may accept—at least those of us who do not give up Motion as a reality of Perception—some such definition as that which Kant gives in his Chapter on Phoronomy in the words “Motion of a *thing* is the change of the external relations of the same to a given space.”

In the next place we have to observe that Nature does not present us with problems of Phoronomy. For the purposes of study we may consider apart the doctrine of Matter as the Moveable with the presupposition that no element but quantity of Motion (or velocity and direction only) is to be taken into account. We may thus deal with a world of imaginary moveables, and may suppose that each member of a group of moving things has its motion, such as it is, in entire independence of the rest—just as for example at a railway junction each particular train may be found to be independent of the others at the same station in respect to its velocity, freight, destination, and so on. All this, however, does not represent either for Common-sense or Science the Matter in motion which makes up the World of actual experience. In the world of experience we find that the motion of one body is not independent of the presence of another. Hence arises the Science of Kinetics which takes this fact into account, and the Science of Dynamics which introduces the element of quantity or degree into the statement of this fact of relation between the motion of a body and the presence of one or more other bodies. In other words we have Kinetics as the science of motion when the mutual action of bodies is considered, and Dynamics as the science which deals with Force as the cause of Motion. Now just as I have contended that the conception of substance is a necessity of thought, and that it has an indispensable part to play in the formation of experience or objective knowledge out of mere sense perceptions, so I should regard the principle of cause and effect in the world of phenomena as claiming a similar position.

If the conception of substance in phenomena is necessary as the ground or subject of all change, that of cause and effect is no less indispensable as the source of an orderly routine. Motion is the change of which the substance, body, or matter of the physicist is the subject. And Force is the word by which he expresses the fact that the rule of all such change is that of Cause and Effect. This I believe to be what is really essential in this conception; and I wish to show that on the one hand this essential element in the conception of Force is one which cannot be abolished without abolishing the necessary conditions of experience; and on the other that a certain proposed change in the systematic use of the word Force which has been strongly advocated by some of the ablest and most recent

writers on Dynamics is a change which does not really invalidate as it seems to do the principle of Causality hitherto expressed by the word Force. The older writers had no qualms on this question, and Professor Clerk Maxwell uses the word deliberately with all the content which I am claiming for it. He says, "If (in a system of bodies) we confine our attention to one of the portions of Matter we see, as it were, only one side of the transaction—viz., that which affects that portion of Matter under our consideration—and we call this aspect of the phenomenon (with reference to its effect) an External Force acting on that portion of Matter, and with reference to its cause we call it the Action of the other portion of Matter." (*Matter and Motion*, p. 35.)

More recent writers protest against this usage of the word Force, though frequently with some inconsistency. For example, Professor Tait begins an article in *Chambers's Encyclopædia* by saying that Force means any cause which changes the direction or speed of the Motion of a portion of Matter, but he goes on to say that without doubt everything yet known on the subject of Dynamics can be perfectly well expressed without the use of the term Force or of the idea which it embodies. Professor Pearson, who discusses the subject in his *Grammar of Science*, very clearly and fully rejects, too, the use of Force as cause of Motion, and definitely uses the word for *the Measure of Motion as expressed in Units of Mass Acceleration*. Now, I take it, that the change advocated by these writers amounts to this. They, if their principle is accepted, will have abolished for ever that more than half mythological use of the word Force which is exemplified typically in the opening pages of Mr. Herbert Spencer's *First Principles*, by which Force appears as a kind of potent genius directing from without the affairs of the world. They will express the fact of the familiar relationship of cause and effect which is latent in the usage of the word in, say Professor Clerk Maxwell's book, but they will use other language for *this* purpose, and will put the old word to a new service. In spite of Professor Tait's assertion that Dynamics can dispense both with the word Force and the idea which it embodies, it will never be used without at once calling to mind by implication the true character of the relation contained in the cases of Motion to which the word will be appropriated. At present there may well arise the notion that Force is a sort of *tertium quid* which undertakes the task of changing the motion of a given body whenever a second body comes into the presence of the first. But this distracting thought is wholly in abeyance in the newer employment of the word. It may be that the word may be used, as Professor Pearson puts it shortly, as the Measure of Motion upon various scales. We may take as equivalent

the Time rate at which momentum changes or the space rate at which energy is transferred, but we do not in either case, as Professor Tait (who himself proposes these alternative scales of value) seems to suppose, dispense with what is really the essential notion embodied in Force.

Both scales involve change, and any change cognisable by us as a portion of objective experience is an effect conditioned by a cause. In the words of Professor Pearson's exposition, "Force is a certain measure of how a corpuscle is dancing relative to a second corpuscle" (*Grammar*, p. 360).

Here the statement that the dance of *A* is not independent of, but is relative to the presence of *B* embodies the causal principle expressed in the old use of the word Force. In this case the principle is given us in the very statement of the relativity of the motion of *A*'s to *B*'s presence; and the word force, not really needed therefore to convey the *fact* of this relativity, is to convey henceforth the quantitative measure of or degree of what we must still call "the action" of *B* upon the dancing of *A*. Thus, to take a particular example, let us suppose two masses. Call the one *A* and the other *B*. Then in dealing with these two masses we may say with Professor Pearson that the Force of *B* on *A* is the product of the mass of *A* into the acceleration of *A* which is due to *B*.

Moreover, the employment of the word force to indicate not the fact of the causal element in the relation of antecedent and consequent but the measure of the change is in perfect harmony with the view of Cause which Kant presented in supplement of Hume's nihilistic treatment of the conception.

He says in *Prolegomena* (p. 60) "the possibility of a *thing* in general as a cause I do not understand. Because the conception of Cause does not refer at all to *things* but only indicates the condition attaching to experience (*i.e.*, that antecedent shall be united to consequent according to the rule of hypothetical judgment-)."

In other words, the conception of Cause belongs to the *form* of experience, and not to the matter, and this I think is just the kind of alteration in the case of the derivative causal conception of Force Professors Kirchhoff, Mach, and Pearson are doing their best to bring about in their department of experience, *viz.*, Physics and Mechanics.

Every advance in scientific terminology has a certain value for philosophy, for every genuine advance of this kind means an exacter expression for some portion of experience. The chief function of philosophy (from the point of view of the present paper) is precise representation of the elements which go to make experience or organised knowledge possible; and only so far as the sciences rid themselves of laxity and superfluity are we able to see clearly what

part is played in the building of the empirical sciences by the several elements which the labourers at the Theory of Knowledge have to discriminate and appreciate.

The sciences take experience or Nature as granted, and the first contribution which may be asked of Philosophy towards the study of any of the material with which the physical sciences deal consists in the application to any particular group of problems of those principles upon which the system of Nature in general depends.

Thus metaphysical presuppositions underlie even the most empirical of the investigations of physicists, and some kind of assumptions as to Space and Time and the reduction of sense perceptions to objective knowledge are acted on whether knowingly or otherwise by every observer, experimentalist or mathematical theorist. The determination of *these* data gives in general terms the *Nature* of Matter and Force, but leaves many tempting fields untouched. The question of Space "*occupancy*" is one of these, and one of the most attractive, leading as it does into the heart of nearly every physical problem. Such questions, however, in spite of the very suggestive discussion which they have received at the hands of Kant, Lotze, and others, do not at the present day seem to me at all hopefully to be attacked without consideration of Modern theories of Elasticity and Energy which were unknown when they were first mooted. We cannot expect in every generation to find a Leibnitz or a Kant.

SYMPOSIUM—DOES LAW IN NATURE EXCLUDE THE POSSIBILITY OF MIRACLE?

I.—By R. J. RYLE, M.A

FAILING any generally accepted definition of a miracle, an attempt may be made to answer the question in terms of some particular theory of experience, for example, the Kantian. In this way a definite meaning will be given to the terms, Law, Nature, and Possibility, by the aid of which a definition valid for this standpoint may be reached.

A Law of Nature, in the sense in which the word is used in the empirical sciences, is a rule or formula which sums up concisely and with generality some portion of experientially acquired knowledge. But experience, by which we learn that things happen and how they happen, cannot tell us that they must happen. What Hume calls "a uniform experience," no matter how extended or accurate, cannot

justify the assertion that Laws in Nature in the sense of Laws of the empirical sciences exclude the *possibility* of miracles.

Moreover, whatever we may have decided to be the mode of origin of our experience, we should have no right to say anything as to Possibility or Impossibility if it were the case that experience could give us only a knowledge of things in themselves; if that is, our knowledge, so far as it extends, is absolutely undetermined both as to matter and form by the faculties through which it has come into being. A reminder of its still fragmentary and incomplete character would suffice to check such a pretension. No Laws in a Nature of this kind could be *known* by us to be universal, though we might in this supposed case say that the laws of the empirical sciences themselves were our ultimate laws.

Similarly, if experience were fully constituted by a simple series of perceptions logically connected in the consciousness of a thinking subject, then, even if we could claim (which may be doubted) any objective character for the world of this supposed experience, both universality and necessity would have no place.*

In short, there can be no question as to *Possibility* unless we are prepared to regard "Nature" as not merely standing for a sum total of objects, but for a sum total of objects connected by necessary Laws; and it is not easy to see how any justification for the element of Necessity (which element must, whether intentionally or otherwise, find a place in any correct description of human experience) is to be found, without in a general sense admitting the justice of Kant's advance from the position of Hume.

If then we are right in describing experience as the joint product of Sense and Understanding, the genesis of experience being the connection of perceptions in a consciousness by certain definite conceptions the function of which is to make the difference between the subjective and contingent merely and the objective and necessary, it follows that we may go on to determine the possibility of things as objects of experience by investigating this genesis. The possibility of experience in general thus is, in Kant's phraseology, the Universal Law of Nature, and the axioms of the one are the laws of the other. Indeed, it might be said that these Laws which the Understanding gives to Nature since they are not discovered by experience but themselves make experience possible, are the real laws of Nature of which the empirical rules or laws of the several sciences are but

* By a scarcely pardonable carelessness Hume's well known Essay on Miracles is often described as impugning the *possibility* of Miracles. In point of fact he impugns the credibility or *possibility* of *proving* Miracles, which is quite another matter.

particular concrete determinations which the progress of discovery brings to light.

With reference to Universal or *a priori* Law only can we speak if the possibility of Miracle in association with Law is in question.

Now every miracle, however it be defined, and whatever it may be beside, is for experience an abrogation of that axiom of experience or law of Nature called the Law of Cause and Effect. It is, therefore, an impossibility of experience.

This conclusion cannot be avoided by saying that a miracle is no exception to the law that all which happens has a cause, since it may be described as an event in which the effect is produced by a "new" cause.

For, just so far as the event is claimed as an instance of cause and effect, so far does it claim a place among the phenomena of experience, and assumes the characters of a natural event (whether understood or not is irrelevant), and what then do we mean by calling it a miracle? We mean, it may be said, that the cause was hyperphysical or supernatural. But to this it must be replied that the conception of cause and effect has for its fundamental feature the fact that it is meaningless except with reference to objects of experience, and experience and nature are for this purpose one and the same. The word cause, therefore, cannot admit of the proposed extension to a sphere other than natural.

Nor can this position be defended by any speculative suggestion that the sphere of the possibilities of being may, perhaps, be wider than the sphere of the possibility of experience (and in one form or other this is a mode of argument frequently adopted by defenders of the Miraculous) because, as a matter of fact, the question is not one as to the possibility of being, but as to the possibility of being experienced, since a miracle under whatever definition always claims to have been a wonderful thing which has been experienced.

It would appear, therefore, that although Law does not exclude the possibility of miracle if the word Law is used in the sense of an empirical rule, and does not exclude it if the word "possibility" is to be taken absolutely, in which sense it can have only a sort of ideal or metaphorical significance, yet we are at liberty to say that the Laws of Nature *a priori* do exclude the possibility of Miracle. We may even venture to offer as a definition of a Miracle, "an event which claims to have been experienced, although the conception of the event is inconsistent with the formal conditions of the possibility of experience."

As such, a Miracle may be accepted or rejected, but the mode of its occurrence admits of no intelligible discussion, nor can it be said that, as such, the fact of its occurrence admits of proof.

II.—By Rev. C. J. SHEBBEARF, B.A.

MAY I, in beginning my answer to Mr. Ryle's paper, call attention to one sentence in it which seems to me to be not consistent with the rest of it? "Experience and Nature," he says, "are for this purpose one and the same;" and he argues that if an event claims a place among the phenomena of experience, and so assumes the characters of a natural event, we cannot call it a miracle. Now, of course, if we begin by saying that any event which is experienced ceases thereby to be a miracle, there is an end of the matter: we cannot, after that, argue that miracles can be experienced. But then, if Mr. Ryle was meaning to rely in the last resort upon this short method, why was it necessary to employ any other argument? I ask Mr. Ryle to allow us to ignore this argument of which I speak, on the ground that it renders unmeaning the argument which he so forcibly sets forth in the earlier part of his paper.

Mr. Ryle's main argument I take to be that a miracle must be defined as an abrogation of the law of Cause and Effect; that that law is one of the *a priori* axioms of experience; that therefore a miracle, though claiming to have been experienced, is inconsistent with the formal conditions of the possibility of experience.

My defence against this reasoning will be an attempt to show that a miracle need not be so defined as to make it an abrogation of the law of Cause and Effect; and I begin by asking whether Mr. Ryle will admit that I am asserting the occurrence of a miracle if I deny the absolute universality of the law of Gravitation, that is, if I assert that matter has been observed to move, even on a single occasion, in such a way that its motions did not fully conform to the statement of the Gravitation formula. Would he not allow that to believe in any single abrogation—to use his own word—of the law of Gravity is to believe in miracle? At least, he will allow that if I classed such an occurrence as a miracle I should not be departing from the common usage of language in the matter—which usage, before I close my paper, I will attempt to defend—for it is just such an event as an abrogation of the law of Gravity, for example, the pausing of a planet on its course, which is what is popularly understood by the word miracle.

But if this event is allowed to be miraculous, then we must have some other definition of miracle than Mr. Ryle's. For I contend that an abrogation of the law of Gravity is not of necessity an abrogation of the law of Cause and Effect or of any other *a priori* axiom of experience. The law of Gravity asserts something over

and above and different from what is asserted by the axioms of experience. For, if we say that it does not assert anything beyond what may be known by discovery of the *a priori* conditions of the possibility of experience, that is the same as saying that the law of Gravity might be known apart from experience, that is, that it is of *a priori* origin, which I am sure Mr. Ryle will not say. The law of Cause and Effect tells us, it may be said, that every event follows from some other event in accordance with a rule; but it cannot be said that this law or any other *a priori* axiom of experience tells us the *particular* rules of the connexion of phenomena; for, if they did, physical science could proceed *a priori* without calling in the aid of experience. Further, even when long uniform experience has shown us definite rules of the connexion of Phenomena, such as that swans are white, or that motions of matter take place in accordance with the Gravitation formula, even then the *a priori* axioms of experience do not enable us to attribute absolute universality to these rules. Thus the law of Gravity asserts something *beyond and different from* that which is asserted by the axioms of experience; and we can, therefore, deny the universality of the former without denying that of the latter.

I do not know whether Mr. Ryle will say that I am admitting the possibility of the entrance, into the chain of causation, of a new cause. I perhaps do not follow his meaning in the words which he writes on that subject; but I will just say in parenthesis that he seems to imply the doctrine that everything which is regarded as an immediate cause of something in the world of to-day must be regarded as an effect of something in the world of yesterday. This doctrine seems to me to be opposed to the principle on which the mind really works in judging of cause and effect; for there can be no doubt that we regard the attractive force which matter to-day possesses as a cause of to-day's motions of matter: yet we do not say that the possession by matter of this power to-day is caused by its possession of that power in the past, nor by any other event in the past. Thus the existence of this power in matter day after day is in this sense as much a new source of causation as it would be that matter should acquire each day fresh powers.

However, be that as it may, this is not the form in which I can most conveniently and directly put my answer to Mr. Ryle. He argues that a miracle must be defined as an abrogation of an *a priori* axiom of experience. I contend that the Law of Gravity is not one of the *a priori* axioms of experience: that therefore to deny it is not to deny any of them: that so, since to deny the universality of the Law of Gravity is to assert the occurrence of a miracle, we can assert the occurrence of a miracle without denying an axiom of experience.

This, however, is not the only argument which can be brought to show the incompatibility of the belief in law with the belief in miracles. Another class of objectors will say, not that a miracle must be so defined as to make it an impossibility of experience, but that the admission of the possibility of miracle involves a denial of the postulates of empirical science. Their view of the empirical sciences will be a different one from Mr. Ryle's. They will not regard these sciences as laying down laws which are all merely concise statements of past experience, but will regard them as claiming to go beyond actual experience and to give us laws which are necessary in the sense that they are valid for future experience. And they will hold that we are able to predict the course of future experience, not only so far as it is determined by the nature of the faculties through which experience comes into being, but also where it is not so determined; in its matter, as Mr. Ryle would say, as well as in its form. These objectors will, therefore, have no hesitation in granting that such an event as is an exception to the Law of Gravity, which was my example, may rightly be called a miracle, for they themselves, when they say that a miracle is an exception to a law of Nature, will mean that it is an exception to a law of the empirical sciences.

But then, they will say, a Law of Nature means a universal statement about Nature, and the belief in Law which empirical science requires is the belief that the matter of experience is such that it can be known by means of universal statements. For, it will be said, if the matter of experience cannot be known by means of universal statements, how can science predict the matter of future experience? The future world is not known to us by separate intuitions of each of its particular events, it must, therefore, be known to us under universal statements or not at all. Science, therefore, they will argue, so far as it claims that the world can be known apart from actual experience, must claim that the world is such that it can be known under universal statements. And how, then, it will be asked, can we allow exceptions to the statements by which the sciences know Nature? A universal statement with exceptions is an untrue statement, and how can Nature be known by means of untrue statements?

In answering this argument it must in the first place be admitted that its objection is perfectly valid as against allowing exceptions to any law which we use as an *ultimate* principle for our knowledge of Nature. If we admit of a universal statement that it can have exceptions, it is of no service whatever for the knowledge of Nature unless we have some other statement behind it which will give us guidance as to how often and where these exceptions may be expected

to occur. So far the objection is good, but no farther. We can say that rules admitting exceptions can never be the ultimate principles under which Nature is known: we cannot say that they can never play any part in giving us knowledge of Nature.

To make this plain, let us consider what the position of the defender of miracles is. He believes (whether on partly empirical or on wholly *a priori* grounds does not matter) that the principles of inference by which the empirical sciences draw conclusions from the past to the future are such as to lead us to true conclusions in the great majority of cases, but not absolutely always. He may or may not believe that he is himself in possession of a principle which will correct the sciences and will show exactly where the exceptions to their laws will take place. But, even if he is aware that he is not in possession of this principle, this will not compel him to deny that there is any such principle, or to doubt that the whole of the events of the world, miraculous and unmiraculous, are capable of being reduced to order and system and known under necessary laws. Thus he need not dispute the general principle that the events of the world happen in accordance with universal statements: he merely disputes the strict correctness of the particular principles of inference which the empirical sciences employ, a matter with which our present discussion is not concerned. And thus he is not claiming to know Nature by means of untrue laws; for when he, like other people, predicts in accordance with the laws of the empirical sciences he is not really in the last resort trusting to those laws themselves, whose strict truth he denies, but to a principle which he believes to be true, namely, that the methods of the empirical sciences will in the vast majority of cases lead to right conclusions.

Whatever else may be said against these opinions, it certainly cannot be said either that they conflict with the belief that the world is such as to be known under general principles or that they throw doubts on the reasonableness of working in accordance with the methods of the empirical sciences, for the admission that those methods may in very rare cases lead us wrong (which is the utmost admission that any believer in miracles ever asked for) no more prevents our working in accordance with them than does the admission which must be made by everyone that, even while professing to follow these methods, we may sometimes arrive at conclusions which they themselves will at a later day show to be false.

But, it will be said, if you grant that miracles, if they happen, happen in accordance with necessary laws, why then do you call them miracles? I answer that I regard the distinction between the miraculous and the unmiraculous as a purely æsthetic distinction, which can only be explained by a comparison. I compare the

narrowed sense in which the word Natural is used when the natural is distinguished from the miraculous with the narrowed sense in which for purposes of Art-criticism the works of Nature are distinguished from the works of man. Nature, as thus spoken of, is regarded as a whole within which certain laws and principles of beauty will be found to dominate which do not dominate outside: we should expect, for example, to discover principles of natural beauty in the nest of a bird which we should not expect to learn by looking at a house built by a man. Just in the same way the observed events with which the empirical sciences concern themselves and the future events which these sciences predict, form together an æsthetic unity with which it is felt that certain supposed events would, if they happened, jar and be out of harmony, just as one part of a picture jars with another if the two are painted in different styles. And these supposed events we therefore call by the name of miracles. Thus I do not believe that we can frame a perfect logical definition of miracle such as would enable us infallibly to distinguish miraculous events from non-miraculous ones, any more than we can frame a logical definition of beauty which will serve as a standard of taste. But I claim that we can make a distinction between the natural and the miraculous without taking miracles out of the category of events which happen according to necessary Laws. The recognition, I may add, of the æsthetic character of the distinction between Nature and Miracle helps to explain, what is, I think, a fact, that the study of Nature tends on the whole to make us disbelievers in Miracle. The more we see of Nature, the more we incline to regard a miracle as, if I may say so, a piece of Vandalism, interrupting the harmony of so beautiful an order. The defender of miracles can meet this feeling only by showing that on the principles of a truer taste this very interruption is justified.

I fear that my paper is already too long, but I should like before I sit down to say one word as to another objection which might possibly be raised against the positions for which I have been contending. It might conceivably be said that the only definite form in which the general conception of Law can be applied to Nature is the form of the Law of Uniformity. I hardly know by what arguments it could in any case be maintained that there is no other form but this in which that general conception could ever be applied to Nature. But, as it happens, it can be shown from the procedure of the sciences themselves that they do not employ the Law of Uniformity as a universal principle: for, if you state the law of Uniformity as the law that the future resembles the past, it can be pointed out that there are many matters in which no one expects the past to be repeated in the future; or, if you say that

the Law is that any connection of phenomena that has been observed for a long time will be observed always, we have only to remind ourselves of the rupture of the long-observed connection between swans and whiteness of which I have already spoken. It will be seen, then, that the sciences assume to themselves the power of distinguishing between long-continued connections which must always be maintained and long-continued connections which may be broken. And if we once allow that uniformity is not the only form in which Law can be applied to Nature, then the Law of Uniformity has no further concern for us this evening, since we are not now discussing the whole subject of the Metaphysic of the empirical sciences, but merely whether or not the general claim to know Nature by means of the conception of Law must be surrendered by those who believe in miracles.

III.—By A. F. SHAND, M.A.

I AGREE with Mr. Shebbeare that miracle need not be regarded as an abrogation of the law of Cause and Effect. Mr. Ryle argues that a miracle is such an abrogation, but he is careful to add that it is such "for experience." He means, if I understand him rightly, that on the Kantian Theory of Knowledge, the idea of miracle implies a transcendent exercise of the category of Cause and Effect; and further, that in the stream of experience an event occurs which has no assignable cause within that stream, and constitutes a hiatus in experience, and an abrogation of the necessary axiom that in experience all events are causally connected. His conclusion is not affected by the distinction which Mr. Shebbeare insists on between the universal axiom of Cause and Effect and its particular instances; for the one lays down the law of the other, and the law is according to Kant, that the cause of every event must be found in a possible experience and not in a supernatural action outside of it. Mr. Ryle's conclusion appears to me a solid deduction from Kant's theory of knowledge, to be accepted by all who accept that theory. On the other hand, those who think that a doctrine which limits knowledge to phenomena must contradict itself, who refuse so to limit the law of Cause and Effect, are quite right in maintaining that a miracle may be conceived as an instance of that law, and not as an exception to it.

In what I have to say to-night I propose to take the various senses of the word "miracle," and to show in what sense or senses it is opposed to the conception of law in Nature.

The etymological meaning of miracle as a wonderful event is the bond connecting all the uses of the word. In this its most general sense it is constantly employed by us to-day. We speak of a miracle

of beauty or of art, and a miraculous escape from danger, without implying any opposition to the laws of Nature, or anything else in fact but the astonishing nature of the occurrence and our ignorance of its cause. Still our ignorance, in proportion as it is complete and the sense of the marvellous most stimulated, often urges us, in the instinctive impulse after some explanation, to give the only one remaining, that of a personal invisible agent. For where a material explanation fails us we fall back on a spiritual one; as to-day we explain some movement of the body that we cannot explain by our present knowledge of the brain and nervous system, by the direct action of the human will. Thus we reach the second stage in the development of the idea of miracle, that in which our inability to give a material explanation forces upon us a spiritual one; and it takes its rise from the instinctive impulse of the intellect to escape from doubt and ignorance, and the fear and oppressive sense of mystery consequent upon them.

The third stage is no longer popular but theological.

In the popular conception two ideas had grown round the nucleus of the marvellous event: one a clear idea,—direct spiritual action; the other more obscure,—opposition to the customary course of Nature. This opposition was rendered precise and rigid by theological reflection. It was definitely stated that the genuine miracle was inexplicable by any law of Nature known or unknown. Miracle came to be defined, with slight variations of language, as an effect due to the immediate action of a spiritual principle suspending the ordinary operations of Nature. But this was clearly contrary to the growing conception of scientific men of an order of Nature that was never suspended. And as science increased in influence, always acting on the same conception, always acquiring fresh verification of it, theologians found an increased difficulty in maintaining a view of miracles opposed to a doctrine so powerful and consistent. They reconsidered their position with reference to the universal law of Cause and Effect, and in its most general form gave in their adhesion to it; and they strove to avoid such phrases as "opposition to" or "suspension of" the laws of Nature.

This new view of miracles has been developed by Dr. Westcott.* He explains the miraculous, seemingly in harmony, with the scientific conception of Nature, as the introduction of a new force which, while it allows all other forces in Nature their full influence, necessarily modifies their effect. Here, then, was a conception that, insisting as much as the older view which it displaced on the direct intervention of the supernatural, with much ingenuity seemed to

* "The Gospel of the Resurrection."

show this to be altogether natural. But, looked at closer, it does not seem there is much difference between the suspension of a natural law through supernatural agency, and its counteraction by the same agency, while giving it permission to produce its full effect. The suspension of a law is its counteraction; for, whatever changes are in progress, can only be suspended by counteracting them. The counteraction of a law is as much a violation of the natural order as its suspension, when it is due to any other supernatural action than that which takes effect in the universal laws of Nature; and the universality of these laws throughout Nature excludes the possibility of any action falling within Nature not explicable by these laws.

We shall see this more clearly if we consider the meaning of "Law in Nature." Sometimes the ambiguous phrase "uniformity of Nature" is used to express the same idea. But the meaning once given of it, that the future resembles the past, is too vague to be of use. The meaning of "Law in Nature" and the "uniformity of Nature" is expressed by the formula, that under the same conditions the result is always the same; that, wherever the result is different, the conditions must also be different. But something more is implied in the conception. The law which the Scientist seeks to discover of physical changes he holds to be discoverable in the physical series itself. Every event in that series he believes to be connected with another event in the same series, and to refer its startling occurrence to the Supreme Will is no explanation for him. Thus the new theological conception of special Divine action modifying the effect of the laws of Nature is as much opposed to his postulate as the old conception of special Divine action suspending them.

I conclude, then, that as Miracles have been and are at present conceived by theologians, they are irreconcilable with the conception of law in Nature held by scientific men. To bring about a reconciliation between them we must modify either the one conception or the other. To modify the conception of Miracle so as to bring it into harmony with that of Law in Nature we must revert to the popular meaning of the word. That meaning, like all popular conceptions, contained an indefiniteness which theological reflection eliminated. In its vague thought of the ordinary course of Nature, in its inability to explain the miraculous in harmony with that course, the popular mind did not explicitly formulate the doctrine that no laws of Nature, known or unknown, could ever account for miracles. Thus, although in an indefinite form, it contained an element of great value, which requires small change to bring it into accord with Science. For this purpose we must define Miracle as a marvellous

event that we cannot explain by what we at present know of Nature, and which, on this account, more forcibly than other events, suggests the working of a spiritual power within Nature. We must then guard against taking our present knowledge as the measure of the possibilities of Nature: and when any miracle is sufficiently attested to we have still to discover the natural law of the event—as in that genuine miracle which takes place in us at every moment, of the interaction of mind and body, we are seeking for an explanation that is based on no *Deus ex machina*.

On the other hand, if the theological conception is to remain uncorrected, we must deny the postulate of Science that the laws of Nature are universal. The thoughtful theologian will allow, as does Mr. Shebbeare, no more than their general truth. He must assert that the physical result is not always the same under the same physical conditions, nor different under different conditions. At times the result is changed, without any corresponding change in the conditions, through the intervention of the supreme mind. An effect occurs in the physical series not connected with any cause in the same series, or a change in the individual mind or character which no psychical law explains. But Science cannot accept this modification of its postulate, nor will theologians, at present, the other. The one would take away the confidence of Science in the order of Nature, and its hope of explaining every event, however marvellous, that occurs there. And as it is in the marvellous and the unknown that the miracle occurs, if anywhere, so any enquiry into its cause would be surrendered as hopeless, or branded as irreverent. The other will equally fail to satisfy the religious consciousness. There is in human nature, still, a strong desire to have some manifestation of the Supreme Mind which cannot be explained away, nor resolved into the ordinary course of things; and that which violates the harmony of Nature is still ardently longed for, because it is supposed to make His existence and attributes clearer to us. To many, the discovery that a miraculous event was strictly in accordance with natural law would seem to rob it alike of mystery and significance. It is so much harder to trust to the universal Divine action in the world, with its perplexing intermixture of good and evil, than to some special action addressed to ourselves, and wrought in response to our human weakness and unsatisfied needs.

THE MEASUREMENT OF SPACE, TIME, AND MATTER.

By PROFESSOR A. G. GREENHILL, F.R.S.

I HAVE chosen as the title of this paper the *Measurement* of Space, Time, and Matter, because this Measurement, combined with the Science of Numbers (*ἀριθμὸν ἔξοχον σοφισμάτων*) constitutes the whole Domain of Mathematics,—the single subject on which I should venture to speak.

But this evening I am only prepared to discuss the borderland which lies between the *Measurement* of Space, Time, and Matter, as constituting Mathematical Science, and the *Definition* of these three things, for which we mathematicians look for assistance to the Philosophers.

Space, Time, and Matter are measured, in civilised life, in terms of arbitrary units, defined by Act of Parliament; for instance, by the yard or metre rule, by the clock or chronometer (keeping time with the mean solar day) and by the pound or kilogramme weight; so that (as Maxwell remarks) the yard or metre rule, the clock or chronometer, and the pound or kilogramme weight are the symbols of modern civilisation.

From these three arbitrary units of Length, Time, and Weight, we are prepared to measure (in terms of so-called *derived* units) all other quantities in Nature such as area, volume, velocity, acceleration, density, force, energy, power, momentum; and more than that, the new quantities required in consequence of the industrial applications of Electricity, for which have been defined the new units of the ohm, volt, ampère, joule, watt, farad, gauss, and so forth.

Electricity and its associated phenomena of Light and Heat would, from certain points of view, deserve to take a place by the side of Space, Time, and Matter, as one of the fundamental manifestations of Nature.

As no ideas existed formerly on these qualities, there were no words to express their quantities: so Electricians have been compelled to coin the appropriate terminology; for, as Dr. Morgan remarks, "We cannot wait for words, because Cicero did not know the Calculus (or Electricity)" and to avoid prejudices, the names of eminent pioneers in this science have been adopted.

It is urged against the Mathematician, and with some justice, that he does not pay sufficient attention to the fundamental ideas upon which he has to base the fabric of his science; and (as you, Sir, must have noticed on your visit to the Mathematical Society), that he is in general too much occupied with his analytical developments

to examine with proper care the philosophic and experimental foundation upon which this analytical superstructure is built.

But then (to employ the language of Rankine), "the question in practical science (in this case Mathematics) is—What are we to do? a question which involves the necessity of the immediate adoption of some rule of working.

"In theoretical science (as Philosophy) the question is—What are we to think? and when a doubtful point arises (for the solution of which either experimental data are wanting, or scientific methods are not sufficiently advanced) it is the duty of philosophic minds not to dispute about the probability of conflicting suppositions, but to labour for the advancement of experimental inquiry and to await patiently the time when these shall be adequate to solve the question."

I have quoted Rankine's own words, although employed by him in contrasting Theoretical and Practical Mathematics, so that they are not exactly applicable to the present occasion; but they are sufficiently apposite for me to be able to employ them in introducing the chief suggestion and request of my paper, and this, gentlemen, is that the Philosopher should come to the assistance of the Mathematician, and help him to put these fundamental ideas of his subject into unimpeachable shape, and at the same time to express them in the simplest and most appropriate language.

Space, Time, and Matter constitute the three Indefinable Qualities of Nature, according to the usual classification.

But although incapable of definition (as we are taught in Mathematics) they are capable of measurement (as well as all other manifestation of Physical Nature) by means of the before-mentioned units, of Length, Time, and Weight.

At the end of Professor Tait's treatise on the "*Properties of Matter*" will be found a compilation by the Rev. Dr. Flint of a number of attempts at the definition of Matter, suggested by various philosophers; such as—

"Matter is the permanent possibility of sensations," by John Stuart Mill.

"The ultimate elements of matter are indivisible points, without extension, but surrounded by spheres of attractive and repulsive force, which alternate according to the distance of these points, up to a certain degree of remoteness"—the Hypothesis of Boscovitch—with similar definitions due to Plato, Aristotle, Descartes, Spinoza, Leibnitz, Hegel, Herbert Spencer, and other philosophers.

With all deference to these great names, the Mathematician will say that there is too much variety and divergence in these attempts at the definitions of Matter, for any one of them to be selected, with the

view of being employed in conjunction with such well-established physical truths as the Axioms of Geometry. It is, therefore, with the object of requesting the Aristotelian Society to take in hand the important work of the revision of these definitions, and the production of an authorised form of them, suitable for use in Mathematics, that I venture to appear before you this evening.

The particular definition or Hypothesis of Boscovitch which I have just quoted is singled out for attack by Maxwell in his Theory of Heat.

Maxwell writes (p. 86)—“Even to this day those who are not practically familiar with the free motion of large masses, though they all admit the truth of dynamical principles, yet feel little repugnance in accepting the theory known as Boscovitch’s—‘that substances are composed of a system of points, which are mere centres of force, attracting or repelling each other.’ It is probable that many qualities of bodies might be explained on this supposition, but no arrangement of centres of force, however complicated, could account for the fact that a body requires a certain force to produce in it a certain change of motion, which fact we express by saying that the body has a certain measurable mass. No part of this mass can be due to the existence of the supposed centres of force.”

Just before this Maxwell goes out of his way to make an attack upon the metaphysicians; and I am surprised that this attack has never received attention or answer.

His words are—“In a rude age, before the invention of means for overcoming friction, the weight of bodies formed the chief obstacle to setting them in motion.

“It was only after some progress had been made in the art of throwing missiles, and in the use of wheel-carriages and floating vessels, that men’s minds became practically impressed with the idea of *mass* as distinguished from weight.

“Accordingly, while almost all the metaphysicians, who discussed the qualities of matter, assigned a prominent place to the *weight* among the primary qualities, few or none of them perceived that the sole unalterable property of matter is its mass.

“At the revival of science this property was expressed by the phrase ‘the inertia of matter’; but while men of science understood by this term the tendency of the body to persevere in its state of motion (or rest) and considered it a measurable quantity, those philosophers who were unacquainted with science understood inertia in its literal sense as a quality—mere want of activity or laziness.” Maxwell concludes by recommending the student to read Faraday’s essay on Mental Inertia, as calculated to impress him with the proper metaphorical use of the phrase, to express, *not* laziness but habitude.

But to this attack the metaphysician could fairly retort that Maxwell might as well accuse the astronomers of calling the stars by their wrong names.

Maxwell and the metaphysician are taking the parts of Petruchio and Katharine in the "Taming of the Shrew" (Act iv, Sc. 5)—

PETRUCHIO: How bright and goodly shines the moon!

KATHARINE: The moon? The sun: it is not moonlight now.

PETRUCHIO: I say it is the moon that shines so bright.

KATHARINE: I know it is the sun that shines so bright.

PETRUCHIO: Now by my mother's son, and that's myself,
It shall be moon, or star, or what I list.

The metaphysician is employing the language in a sense consecrated by immemorial usage. Like the merchant, he measures the weight of a body in pounds, while the mathematician measures the mass of the body in pounds; the object of the mathematician being to degrade the word weight to mean merely the force of gravity on the pound; and that only when it is upon or near the surface of this planet, on which the human race is imprisoned.

This restricted use of the word weight is quite contrary to its *usage* in all our successive Acts of Parliament on "Weights and Measures"; and legally speaking, the mathematician's definition is very loosely drafted; as a body would in this language have a different weight according as it was employed as a missile, a wheel carriage, or a floating vessel.

The inertia of a wheel carriage, again, is not exactly the same as the mass, by reason of the rotary inertia of the wheels; while the presence of the surrounding medium makes the inertia of the floating vessel or modern missile different in different directions, so that we are compelled in artillery to give a spin to an elongated projectile in order to ensure its stability in flight; and in a steamer to be continually altering the helm to keep the vessel on her course.

The Scientific Conception of the Measurement of TIME has already received such exhaustive treatment in a paper read before the Aristotelian Society by Mr. E. Hawksley Rhodes that I scarcely venture to add any words on this subject.

When once clocks were constructed of some pretence to accuracy, it was immediately perceived that while the interval between the meridian transits of a star was accurately the same, the sun was sometimes a little fast and sometimes slow on the mean sun going round once a year.

Sidereal time, invariably employed by astronomers, is unsuitable for daily life; so that clocks and watches are constructed to keep mean solar time; and the chief object for which the Greenwich

Observatory was founded is to keep the time as accurately as possible for the benefit of Navigation.

Before being moved down to Greenwich, the Observatory existed in the Tower of London, and the clock in one of the turrets of the White Tower was under the care of the Astronomer Royal, to give the time to the shipping in the Pool.

The Sun is, however, the standard clock for Terrestrial Nature; it is sometimes a little fast or slow, but its average rate is that by which our clocks must be regulated.

It is a disputed point whether it would be possible to detect under any circumstances a constant gaining or losing rate in the solar clock on its present measurement of Time, where the rate would be due to an increase or diminution of the Earth's spin, caused by the cooling and contraction of the Earth, or by Tidal Friction.

But such an alteration in rate is very perceptible in crossing the Atlantic to America in a fast modern steamer; the traveller is running away from the sun, so that his watch, set to mean solar time on *land*, shows a mean solar day of nearly 25 hours; and it is *this* property which enables the navigator to determine his longitude with accuracy when he is provided with a good chronometer.

It is difficult to imagine any experiment, of sufficient accuracy to satisfy legal requirements, which could be authorised as giving the human race a permanent standard of Time, independent of the spin of the Earth.

Maxwell suggested, as a general cosmopolitan unit of time, the period of a satellite grazing round a planet of water.

The mean density of Jupiter is very nearly that of water; and its newly-discovered fifth satellite has a mean distance from the centre of $2\frac{1}{2}$ semi-diameters, and a period of about 12 hours. According to Kepler's Third Law, this would make Maxwell's cosmopolitan unit of time about $3\frac{1}{2}$ of our terrestrial hours; this might be taken as the standard event, mentioned by Mr. Rhodes, to be applied to the measurement of other events.

It would be difficult, however, to draft an Act of Parliament, making this the legal unit of Time, and also specifying a standard of reference for appeal in cases of litigation.

Similarly, in the Measurement of Electricity we have read recently (*Times*, 5th December, 1892) that the legal specification of the *Ohm* in the Act of Parliament is framed so as to make it the representative of a velocity of a quadrant of the meridian, or 10 thousand kilometres, per second: but as this definition is useless for purposes of reference, an alternative definition, subject to revision, is legalised, specifying the *Ohm* as the resistance of a certain length (106.3 cm.) of mercury, one square millimetre in cross section.

The division of the complete day into two parts, each of twelve hours, of each hour into 60 minutes, and of each minute into 60 seconds, adopted by all civilised nations, is supposed to be derived from the Chaldean astronomers.

The duodecimal division of the circle naturally presents itself when we find that six equal steps with a compass opened out at the radius, carry us round the circle; and that the intersections of the corresponding circular arcs give the further division into 12 parts.

Why each of the divisions should have been divided into 30 degrees, so as to make 360° in the circumference, is unknown to us; unless it was because the Chaldean astronomers taught that the year consisted or ought to consist of 360 days.

These duodecimal and sexagesimal divisions were considered an abomination by the scientific framers of the Metric Decimal System in 1795; the first thing they did was to divide the day into 40 centesimal hours, each hour into 100 centesimal minutes, and each minute into 100 centesimal seconds.

For purposes of Navigation, the equator was divided into 400 degrees or grades of arc; and the quadrant of the meridian from the equator to the pole into 100 grades; each grade was then divided into 100 minutes, and the mean length of one of these minutes was taken as the geographical mile and called the kilometre (of 1,000 metres), so that the Earth is 40,000 kilometres in girth.

The metre was divided into 10 decimetres or 100 centimetres, and a decimetre cube of water was made into the *unité de poids*, and called the kilogram.

A standard metre and kilogram were constructed from these conditions; and now, although further measurements have shown that the metre is not exactly the 10 millionth of a quadrant of the meridian, and that the kilogram is not exactly the weight of a decimeter cube of water, yet the discrepancies can only be detected by very careful scientific measurements; and the first constructed metre scale and kilogram weight remain the legal metric standards from which all others are copied and derived.

The Metric System has become such an integral part of modern civilisation that it is never likely to be displaced.

But, unfortunately for the completeness of the system the world refuses to adopt the centesimal measurement of Time.

Centesimal Time being abandoned, centesimal degrees and minutes are also useless in longitude, so that the Metric System has never been employed in Navigation.

Scientific results are now commonly expressed in what is called the C.G.S. (centimetre—gramme—second) system of units; but this

system is a mongrel system, as the second, used here as the unit of time, is the mean solar sexagesimal second.

I fear, however, that I am being lured away into too much mathematical detail, so I will conclude my remarks by a return to the fundamental conceptions of Space, Time, and Matter, and of the methods by which they are measured.

Time is measured, as we have seen, by the rotation of the Earth in its effect of the succession of day and night; equal times are defined mathematically as the times in which the Earth turns through equal angles.

The measurement of Time is thus referred to a definite Movement, the motion of rotation of the Earth.

For this reason, you, Sir, have maintained, in your *Essays on Space and Time*, that Motion may be considered a more fundamental conception than Time.

But for dynamical purposes it is indispensable to take Time for the so-called independent variable, as a quantity growing equally and uniformly; Time being the integral or accumulation of Motion.

Again, all our ideas of Motion of Translation must necessarily be relative, as we have no fixed anchorage in Space.

The walls of this room appear to us at rest, although Astronomy teaches us that we are flying in space relatively to the centre of the Earth with a velocity of about 1,000 feet per second, while the centre of the Earth is moving relatively to the Sun with a velocity of about 100 miles a second.

The particular Motion however by which Time is measured is the rotation of the Earth; and this, we are taught by Newton, possesses an absolute direction in space, in the direction of the Pole Star; but the arguments and illustration adduced by Newton, of the rotation of a bucket of water suspended by a vertical rope, have been attacked lately by Professor Karl Pearson in his *Grammar of Science*.

So far as Pure Geometry is concerned the only unit required is that of Length, by means of which Space is measured; this unit may nowadays be considered the metre.

It is conjectured that the Pyramids were intended to serve as legal standards of Length in Egypt; but no definite results can be said to have been arrived at.

Matter is measured by what the mathematician wants to force the world to call the Mass, but this the Metaphysician, in common with the rest of the world, calls the Weight.

The Weight of a body, as the name implies, is the quantity measured out by weighing, against standard lumps of metal called Weights; and this operation gives a correct and consistent result

wherever it is carried out in the Universe, provided there is a sensible field of gravity.

But as all matter on the surface of the Earth requires a force to lift it against the pull of gravity which is proportional to the Weight, the two ideas of Quantity of Matter in a body and of the Force required to lift the Body (Heft, pesanteur, Schwere) are so inseparably connected in human experience, that we have only one word in the English language to express both these notions.

In conclusion I would ask the opinion of the Members of the Aristotelian Society concerning the best definitions which could be adopted by Mathematicians of Space, Time, and Matter; or failing exact definitions, what is the best way of going round the difficulty.

PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

FOR THE

SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.
No. 2, Part II.

CONTENTS.

	PAGE
Symposium—Has the Perception of Time an Origin in Thought?—	
I. By S. Alexander	51
II. By G. D. Hicks	58
The Unifying Principle in the Moral Ideal—By Rev. C. J. Shebbeare, B.A. .	68
Time-Measurement in its Bearing on Philosophy—By Shadworth H. Hodgson	77
John of Salisbury—By Clement C. J. Webb, M.A.	91
The Philosophy of Mr. Shadworth Hodgson—By G. F. Stout, M.A.	107
Symposium—Is Human Law the Basis of Morality, or Morality of Human Law?—	
I. By Professor J. Brough, LL.D.	120
II. By D. G. Ritchie, M.A.	124
III. By G. F. Stout, M.A.	129

APPENDIX.

Report and Suggestions of the Executive Committee for the Fourteenth Session	134
Financial Statement	136
List of Papers read during the Fourteenth Session, 1892-93	138
List of Officers and Members	139
Rules of the Society	143



SYMPOSIUM—HAS THE PERCEPTION OF TIME AN ORIGIN IN THOUGHT?

I.—*By* S. ALEXANDER.

THREE questions of a philosophical, or semi-philosophical, character with regard to time may be distinguished:—

- (1) Is Time real? Does the sense or perception of time correspond to any objective time in the real world, or is it purely subjective?
- (2) Is the sense or perception of time original, or is it simply composed of elements derived from experience?
- (3) Granting that it is analysable into simpler elements, what are these elements?

Of these three questions the second or transcendental is the special object of our discussion to-night. The first or strictly philosophical question may be excluded altogether. The third or psychological question is not raised by the terms of the discussion, but is not easily avoided in any attempt to supply an answer. There is a fourth question, which would seem the most elementary of all, What is the perception of Time, that is, what is perceived by the perception of Time? But it is really involved in the transcendental and the psychological question, according as the scope of psychology or the theory of knowledge is conceived. Some would call it the metaphysical question, and it is discussed by Kant in what he calls the metaphysical exposition of Time. I need hardly say that these three questions can be kept apart from each other only by an effort of will, and that they have not been as a matter of fact separated from each other in the history of the subject. Thus, to refer only to Kant, the question of the reality of time and space is intimately bound up with the answer to the question whether time is derived from perception or is the condition of perception.

As I have mentioned Kant's metaphysical exposition of Time, I may as well begin by mentioning a preliminary difficulty. The question proposed asks whether the perception of time has an origin in thought. The word thought must be taken in the wide sense which Professor James gives to it if the language is to be intelligible. In the metaphysical exposition Kant contends that Time is a perception, and not a conception or thought. He maintains this on the grounds that Time is presented as a single, infinite whole, while special times (on the analogy of space) are sections cut off from this whole. These marks are all compatible with Time being a

perception. If it were a conception it must be limited, and must be derived from special times by abstraction. Hence when Kant came to consider the position of time transcendently, he held it to be a form not of thought but of perception. Many of his later followers have deserted him upon this matter, and have declared time to be as much a form of thought as the categories. The fact is that time as it exists in our consciousness contains conceptual elements along with perceptual. Periods of time are certainly given as percepts, or in sensational experience, but these sensational data are always affected by the concept of time which is derived from them. Every attempt at measuring a perceived time involves the use of determinate or conceptual times. But also the very perception of a single infinite time which Kant regarded as evidence for the perceptual character of time is an extension given to the perception of a concrete time by the abstract notion of time in general. It may be maintained, as the President maintains, that the infinity of time is contained in the perception of the present moment as the limit which ends a past and begins a future. Still, even if this were so, this is not the perception of a single infinite time, to obtain which we must qualify the present perception by the notions of continuity and infinity derived from perceptual experience. More plainly still the operation of thought is seen in acquiring the perception of a time which is one and the same for you and me, in equating subjective to objective time. While I continue to speak of the perception of time, I shall therefore assume these considerations, and need not trouble myself to refer again to the verbal difficulty contained in the terms of the question.

Has then the perception of time, or has it not, an origin in thought? That is to say, must the perception of time be regarded as an original endowment of mind, or is it acquired from experience like all other perceptions? Kant has, of course, answered this question in the sense of the first alternative. Time is, according to him, a form of perception. Now in judging the value of an assertion like this, we must, I think, distinguish between two different notions: is time one of the conditions of experience, or is it one of the elements of experience? If it is one of the conditions of experience, then it derives from a source other than that of the material elements of experience; if it is simply an element of experience, then it still remains possible to distinguish among these elements those of a material character from those of a formal character. Now I do not wish to raise expressly the problem of the interpretation of Kant's philosophy. But it must be accepted, I think, that with Kant space and time and the categories are not so much elements of experience as conditions of it. They are supplied by the mind

itself, while all else comes from the outer world. Kant always is asking the question how are synthetic propositions *a priori* possible, how is determinate order in time possible, and the like; and the various forms of perception and thought supply the answer to this question. It is true that there is a difference between Kant and the later school of neo-Kantians which depends upon the difference between the two meanings of experience. Experience may either mean the objects or contents of experience, or it may mean the actual state of mind directed upon these objects. Now Kant tends to deal with knowledge, that is the object of experience, difficult as it may be to reconcile with this assertion his view of space and time. Whereas the later Kantians tend to deal with knowledge as a mental state, and consequently to slip into it what Kant had maintained of knowledge as the contents of mental states. Still, apart from this, time is with Kant transcendental—it has a different source; it is a constituent of experience, but there is no community between the forms of experience and the material of it. The material has to be moulded by the external forms. I am not going to examine the transcendental position. I will only point out that Kant's position was determined by his antecedents. He wanted to account for the validity of certain parts of knowledge; he saw they were elements of knowledge, and he established their validity when once discovered by clothing them with authority. They are all constitutional monarchs who can do no wrong. It is only their advisers, the empirical events which supply them with fallible suggestions, which can turn their authority to false uses. The transcendental answer as such breaks down, because the validity of the forms can be accounted for otherwise. It is quite true that Kant did not answer Hume. He merely postulated in another form the validity which Hume had impugned. But on purely empirical principles it is possible to answer Hume by showing how certain forms of thought come to have validity; namely, by that process of natural selection which extirpates all minds incapable of thinking in these forms. The real answer to Hume is given by Darwinism.

The case is different if we cease to think of Time as a condition of experience, and think of it as an element of experience. Consider first what this means. It means that Time and space and the other forms are objects of consciousness instead of being—as they might be supposed to be—the instruments of consciousness. They are perceived in the same way as all things else are perceived, because, corresponding to these ideas, there are certain events in consciousness, or, to speak physiologically, certain movements in the substance of the brain. They are not put in by the mind into its other experiences, but they are experiences themselves. They are subjective

only in the sense that they belong to that particular object of consciousness which is known as the subject. The sense of time, according to this, would be as much a state of consciousness as attention or volition. Now, if we take this view, then we can deny that the perception of time has an origin in thought only in so far as we draw a distinction between certain experiences which are formal and certain others which are material. All our experiences, it is said, are presented in time. If this is so, it would seem to give the perception of time a priority of rank. But the perception would be none the less a state of consciousness, like others. Take as another illustration the perception of the self. The self is held by many theories to be a condition of all experience, in the sense that no experience is possible except as referred to the self. On further consideration, the matter appears in a different light. The self is shown to be an object of consciousness; the various elements of perception, whether organic sensations, thoughts, or volitions, it is the business of analytical psychology to unfold. In many of our experiences we have, along with a perception, the reference of this perception to the self. The self, then, enters into many of our experiences, and may be said to be a formal element in these, while it still remains on the same level, so far as it is an object of consciousness.

If we regard Time like space and the categories as elements, not conditions of our experience, it is for our present purpose comparatively indifferent whether the perception is a simple one like that of redness, or analysable into simpler elements like that of an orange. Spatiality, if not space, has in fact been held by recent psychologists to be a simple sensational element. No one, so far as I know, has assigned any equally simple origin to time.* Let us leave for a moment the question what it is which we perceive in perceiving time, and ask how far we can justly think of time as formal in contrast with the material elements of experience which occur in time. As at present advised, I think the distinction is justified. But the terms formal and material do not, I think, express the antithesis happily. It is more appropriate to describe time as a subjective element in contrast with other objective elements. The reason of this is that the sense of time is, as will be presently explained, so far as we can tell at present, supplied by operations within the body itself, *e.g.*, the movement of attention, whereas the law of gravitation, to take an objective element in experience, is supplied by operations within the external world. The same account would apply to space on the ordinary or associationist theory which refers that perception

* Written without knowledge of Professor Mach's view and of Dr. Meumann's first article in the *Phil. Studien*.

to experience of movements in the limbs, or the eyes. Space would, according to this, be the most general form of reaction of the body upon solicitation from without; time would be the most general form of reaction of the body upon its own ideas. This would be restating Kant's doctrine that space and time are the forms of the outer and inner sense, without the fundamental error belonging to Kant's conception of form. On the other hand, this explanation would not apply if space is regarded as the mere factor of extensity in sensation. There would then be no justification for describing space as subjective in its origin. Those who hold this doctrine may be driven to regard space and time as formal merely in the sense that they enter as constituents into all our perceptions. But with regard to time, at least, I do not feel certain that the sense of time does always accompany our inner states.

Whether the categories of thought as well can be described as subjective in their origin, and therefore distinguishable from the other parts of experience, I do not purpose to enquire. Readers of Mr. Ward's article know with what care he has endeavoured to establish this with regard to substance, causality, and identity. What I wish to insist on is that, granting time to be subjective in the sense described, it is not subjective in the sense in which the mind is opposed to external things. The perception of time is only subjective as arising from that one external thing which we call ourselves or our bodies.

Paradoxical as it may seem, the existence of the organic sensations corroborates the truth of this view. For, by the organic sensations, we become aware of our bodies as external objects, and by the accompanying space and time forms we localise them in space and at the same time are aware of the time during which these sensations take place.

Hence I do not think it appropriate to distinguish space and time and the categories from their material contents as being the one original, the other derived from experience. In the first place, it requires experience to develop these forms, and hence the word original is not appropriate. This is, however, a minor matter. But if the antithesis implies that the forms are connate with the mind, or arise from the natural structure of the brain, whereas for the material of experience we are dependent on the outer world, then in reply to this I urge in the first place that all our experience, formal and material, subjective and objective, is equally mental and equally objective. In the second place, the apprehension of the external world through the ordinary medium of the senses depends on the existence of organisms which possess these sense organs; and, still further, we should not be able to apprehend the complicated system of the

relations of things in the world unless our brains were capable of being stimulated correspondingly; and, as a matter of fact, brains so incapable do not learn the relations of things in the world. Granting, then, that time and space and the categories are original in the sense that they are perceived in virtue of particular subjective experiences from the organism itself, we must remember that the process of natural selection, which has secured this result, has secured also the capacity of being affected by the experiences of the most "acquired" character. Mr. James, in his delightful manner, draws a distinction between knowledge which comes in by the front door, and knowledge which comes in by the back door; the second kind being due to the conformation of our brain structure as selected in the struggle for survival, the first being the ordinary acquired experience. I have little doubt that this is a perfectly valid notion, and constitutes an advance upon Mr. Spencer's theory, accepted hitherto, of the development of *a priori* ideas through inheritance of acquired experience. But I want to insist that any of the experiences we now call acquired may become original (as we see in the way in which scientific notions become original, because people cannot help thinking in a certain way), and that, consequently, it is not a valid way of expressing the fact to say that the mental form has no origin in experience while other experience has (which, of course, I don't accuse Mr. James of asserting). They have equally an origin, but the source of the experience is different, and this difference of source constitutes a real, though so far as I can see, not a final difference between the two kinds of experience.

The order of the topics is not of my own choosing, but is dictated by the question, which points to a metaphysical discussion. In my belief the psychology of time should precede its metaphysics. But though I have nearly run my clepsydra dry with drier metaphysics, I must add a word or two at the end to ask what the perception of time is. It seems a poor thing to assert that the perception of time is an ordinary presentation, and make no attempt to justify the assertion. For here we have an interest in knowing whether time is a mere simple sensational content, as some assert extensity to be, or a compound. What is it then which we perceive in perceiving time? It has over and over again been demonstrated that to be aware of time we need more than the succession of mental states, we need to have the perception of this succession. How is this perception effected? Clearly enough we must first of all have events given us in perception or idea just as for the perception of definite spaces we need impressions of touch or of colour. The old Herbartian theory endeavours to explain the genesis of the time-sense solely from the dying away of the after image of the past, the vividness of the

momentary present, and the dawning and gradually increasing strength of the expected future. Duration would be determined by the extent to which the impressions experienced successively are present in that broad strip of faint and lively ideas, which constitutes the real present. But this is clearly insufficient, for by what test should we distinguish a faint impression in the present or in the future from a vivid impression in the past, which is now only faintly presented in consciousness? In order to establish this distinction, each mental event needs to have what Mr. Ward calls its temporal sign. The interest of the theory of signs, whether local signs or temporal signs, lie in the psychological or physiological character of the signs. As to the temporal signs, there seems to be a pretty general agreement that they represent the state of the attention connected with any given mental content. Thus if A, B, C, D, E, are a series of events, and $abcde$ represents the broad present moment when the attention is concentrated on C, a and b will be associated with relaxed and de with beginning attentional adjustment, and will be distinguished as past and future respectively. What the more precise character of the adjustment of the attention is, is a matter of the greatest doubt. It may possibly be mainly an ideational matter in the centre, it may more probably be mainly a matter of adjustment of the sense organs and of the whole body. But at least it is this, it is the movement of something continuous of which the rise or tension is felt to be different from the fall or relaxation, which therefore is able to serve as a temporal sign. Many different factors seem to play a part in this movement—not merely the tension and relaxation of the muscles concerned in the attention, but also the rhythm of the breathing, at any rate in judging of longer periods of time. Experiment has attacked the subject and the history of the time-sense from Vierordt's experiments down to to-day form a most interesting and instructive chapter in the history of psychology. These experiments have mainly concerned themselves with the measurement of intervals of time, rightly judging that he who can tell something of how we measure time has gone a long way towards understanding time. An account of them is given in a recent paper by Dr. Schumann in the *Zeitschrift für Psych. und Physiol. d. Sinnesorgan.* Dr. Schumann himself investigates the capacity of estimating very small times, and comes to the conclusion that the estimation depends on the state of the sensory attention. One question has not, I think, been raised by these experiments. Granting that with a given rhythm of attention intervals are judged equal which terminate with the same attentional phase, and do not either surprise by their suddenness or disappoint by their delay, it still remains to ask how do we know without counting when a number of

those rhythmical periods is complete. The same problem arises in connection with the well-known power which some persons possess of waking themselves at certain hours, and recent investigations of M. Delboeuf demonstrate a remarkable capacity of estimating periods of time in hypnotic patients. What is the physical process, the perception of which gives to the patient the sense that a certain time has elapsed?

II.—By G. D. HICKS.

I sympathise with Mr. Alexander in the embarrassment which he has evidently found in the statement of the question proposed. Perception—Origin—Thought—one feels a host of knotty questions to be involved in each of these terms, about which some prior understanding as to their significance in this relation would seem to be an essential preliminary to a profitable discussion. Mr. Alexander, however, takes it to be primarily a question in *Erkenntniss theorie*, and although I confess I should have regarded it rather as psychologically intended, I am content to abide by the issues which the opener has raised. At the outset, nevertheless, I cannot accept the three possible divisions of the subject which he has made. It seems to me, in the first place, that, in any philosophical arrangement, the epistemological question, not the psychological, is the prior one, and I am not so sure that when this had been answered there would be any question No. 1, as to the reality of time, waiting for solution. At any rate, it is noteworthy how Mr. Alexander, having first “excluded altogether” the “strictly philosophical question,” finds himself apologising later for having nearly run his “clepsydra dry with drier Metaphysics.” I imagine he would not have much more to say about the reality of time when his “transcendental” analysis had been pursued to its legitimate consequences. Such reality, if I mistake not, would be consigned to one of two last resting places—either that convenient receptacle of all philosophical difficulties, “the Unknowable,” or that concourse of “simpler elements” into which the perception is psychologically resolved. But I am concerned more with the statement of the psychological problem. I believe the scope and method of psychology are very inadequately conceived when it is regarded simply as a process of analysis—an anatomy of the mental life. In particular, the all important fact of growth or development can have but scant justice done to it from this point of view. I would then restate the problems to be distinguished with regard to time thus:—

- (1) What part does the perception or notion of time play in the connected whole which we call knowledge?

- (2) How does it happen that in the history of the finite mind the individual comes to regard his experience as taking place in time?

For our purpose this division has the additional advantage that both problems come within the scope of the question as the opener has regarded it. It will be seen that I do not find it possible to exclude from problem 1 the question of the reality of time, a question which seems to me to fall within its scope. Nor do I pretend that the framing of problem 2 is not based upon a general philosophical ground. But in this respect I maintain that it stands upon precisely the same level as all other ways of stating the psychological problem. They all imply, consciously or unconsciously, a latent Metaphysics, and it is better that this should be recognised. To quote an authority that Mr. Alexander more than once appeals to, Professor James, "Hume is at bottom as much of a Metaphysician as Thomas Aquinas."

To begin then with the Epistemological question, in which connection Mr. Alexander has rightly, as I think, gone "back to Kant," and has selected for notice first the Kantian contention that time is to be regarded as a perception or intuition, not as "a discursive or general concept." A discussion of this point will yield, I think, a more satisfactory signification for the word "thought," as it appears in our question, than "the wide sense which Professor James gives to it." The grounds of Kant's views are—(a) that "different times are parts only of one and the same time," that is to say, that the perception of time is not on a par with, e.g., such a concept as "humanity" (to take Green's example) which "cannot be presented as a *quantum*, of which the individuals related in the way of humanity are parts," and (b) that time is represented by us as an infinite given whole. This latter is equally a characteristic of perception, not of conception. The concept of "humanity" may contain an indefinite number of individuals *under* it, but it contains only a definite number of marks *in* it, which latter cannot be increased or decreased without altering the conception. On the other hand, an object of perception, as individual, presents the possibility of an infinity of determinations, and can never be exhaustively defined. Now, of one result of this investigation we may rest, I think, perfectly assured, viz., that whatever our explanation of the relation of time to experience may be, time itself as it appears in the actual life of mind, is not a conception derived by a process of generalisation from objects, comparable to the way in which the concept of "humanity" may be regarded as having been derived. But it cannot be denied that Kant's way of stating the case is

unfortunate. Apart from the fact that he provisionally speaks in the *Æsthetic*, as though objects fully formed were *given* to sense (a point of view, however, which is immediately afterwards examined and dismissed), his arguments seem to turn upon psychological considerations which are not pertinent to the problem in hand. On Kant's own showing there can be no real distinction in this respect between the forms of space and time and the categories of thought. The considerations which he urges in respect to the former apply equally to the latter. He describes the categories as conceptions or notions, and yet it is clearly absurd to regard them as on a level with those general conceptions which the individual in the course of his experience comes to form by a process of abstraction. The categories clearly are not formed in this way, and they have an altogether different function in the realm of knowledge. Moreover, on purely psychological grounds, the distinction of Perception from Conception, when pressed beyond certain narrow limits (such as was illustrated in the example quoted from Green) is untenable. What I mean is that there can be no ultimate difference in kind between the processes we call respectively *perceiving* and *thinking*. If it be the case that the simplest, crudest presentation cannot be accounted for as a factor in mind without resorting for its explanation to those elementary acts of discrimination and assimilation, which afterwards become the highly developed forms of activity we call thinking (and such seems to me to be the case), then it is evident that the difference between the processes in question is one of degree, and concerns rather the special material or filling in the two cases. That is to say, that, inasmuch as the simplest act of perception is in its nature an act of Judgment, so too must be the perception of time. Here then may be found a legitimate sense in which the word "thought" in our question may be taken. The bearing of these remarks upon what Mr. Alexander has to say concerning "perceived" and "conceptual time" will be, I trust, sufficiently obvious, and in this connection I will only add one other consideration with reference to his contention that "the very perception of a single infinite time is an extension given to the perception of a concrete time by the abstract notion of time in general." This question has been exhaustively dealt with by Professor Caird, and following him, I would urge that, although on the one hand an infinite whole cannot, as Kant afterwards shows, actually be "given" in the completeness of determination, in "the present perception," although "such determination is a progressive one on the part of the developing finite intelligence, proceeding *a parte ad totum*," yet on the other hand what Kant calls the "idea" of the whole, "as that in, and in reference to which the part is determined, is implied in the

process from the first," and so from this point of view "knowledge may be said to proceed *a toto ad partes*." And in this respect again there is justification for regarding time as rather partaking of the nature of perception than as the result of a process of discursive thinking, although the apprehensions of such potential infinity is in no sense a merely passive reception of knowledge, but implies that activity of consciousness which is involved as much in perception as in the higher processes called, in psychology, thinking.

I proceed now to Mr. Alexander's main contention that time is not to be regarded as a condition of experience, but rather as an element of experience, that it is not an "instrument of consciousness" but an object of consciousness, and is perceived in the same way as all things else are perceived. In this contention the writer conceives himself to be combating Kant. I do not enter into the question of the interpretation of the Kantian philosophy, a matter which Mr. Alexander disclaims any wish to raise. It is well known that there are two lines of reflection running through the work of Kant, the one psychological and "determined by his antecedents," as Mr. Alexander says, and the other truly transcendental, which indeed it seems to me to be doing Kant the most grievous injustice to ignore, and which affords in itself the corrective for the former. But I am regarding this question from what I take to be the truly transcendental standpoint, without presuming to commit Kant to its consistency. And I ask in the first place, does the fact that you have elected to regard time as an element of experience, even as "arising from that one external thing which we call ourselves or our bodies," enable you to dispense with that transcendental investigation of it which inquires what its significance is in knowledge as such? We have learnt the lesson of the Kantian criticism to very little purpose if it does not enable us to see that the question "how are synthetic *a posteriori* judgments possible" is just as much in need of an answer as the one which Kant actually asked. Granted, that is to say, that time *is*, as Mr. Alexander argues, "*simply* an element of experience," granted that it *is* empirically derived because corresponding to it there are "certain movements in the substance of the brain," are we any nearer to its explanation as a fact in knowledge? Mr. Alexander, reversing the method which he attributes to Kant, seems to regard the "empirical events" as the "constitutional monarchs who can do no wrong." I trust I am not misrepresenting him, but certainly he seems to say--given certain material conditions and given finite minds, then time as a fact in knowledge can be explained, or at least that no further explanation is called for. And in opposition I would contend that explanation of the possibility of knowledge is just as much required for the empirical material therein as it is for what

Kant called the *a priori* or formal elements. In other words, if we are true to the Kantian method of criticism we must maintain that the difference between *a priori* and *a posteriori* is not an absolute one, and that the conditions involved in knowing are involved equally in both. And thus it seems to me that, even though we should grant all that Mr. Alexander urges, the question would still remain—How is the perception of time, as a fact in knowledge, possible?

This has cleared the ground for my next point, that the antithesis which Mr. Alexander seeks to draw between the "conditions of experience" and the "elements of experience"—between "the forms of experience" and "the material of it"—is no true antithesis. Mr. Alexander admits that Kant regarded time as "a constituent of experience" (and by the way, is not a "constituent of experience" an "element of experience"?), but contends that there was for him "no community between the forms of experience and the material of it." Now, again, I am not going to dispute that this is a possible interpretation of Kant—this view of the finite mind as "the seat of universals" and of "the world as a jumble of particulars," and of knowledge as resulting from the former producing order in this chaos of "pelting impressions," although once more I find the corrective in Kant himself. For, as Professor Seth points out, these are "the very chimeras which the transcendental method went out to slay," and which, I would add, it *did* most effectually slay. It is clear, for example, that though Kant frequently tends to hypostatize the categories in the way Mr. Alexander describes, he is at the same time well aware that this is but an abstract way of regarding them, and that in the real concrete life of mind they exist only in the synthesis of universal and particular. They are the general unifying elements in objects—indeed they are the very elements which in themselves constitute the objective reference—and thus are as truly "elements of experience" as the contingent particulars. Neither exist in concrete experience apart from the other. So, too, in regard to time—although "by itself, apart from the subject, it is nothing," yet, "with respect to all phenomena, that is, all things which can come within our experience, time is necessarily objective," "empirically real"—that is to say, is a property of the phenomenal object, and as such is an element of experience, and *our* knowledge of it is acquired. Nothing can be more of a caricature of the Kantian view, it seems to me, than to regard that time is "original" in contrast to what is "acquired from experience." The perceptions of space and time are for Kant "*ohne Zweifelerworben*," not "*angeboren*," and his *Critique* "*erlaubt schlechterdings keine angeborene Vorstellungen*." I take it, then, that consistently with the genuine transcendental standpoint, what we imply by speaking of time as a "condition of

experience," or as an "*a priori* form of perception," is that, regarded abstractedly and detached from its concrete and particular filling, it possesses those characteristics of generality, of uniformity, of simplicity, of primariness (to use Green's words), which give it a range of validity and necessity that cannot be predicated, in the same way, of the contingent data of experience. It is one of the most general principles upon which we find the phenomenal universe to depend, and from its relations in that universe it derives its character of universality and necessity.

In what sense, then, if any, is it correct to speak of time as subjective? I agree with Mr. Alexander that it is certainly not subjective "in the sense in which the mind is opposed to external things," a point of view which I regard as philosophically unmeaning. It is not subjective, further, as being a contingent or psychological accident of the individual mind, as being a way in which the individual mind "reacts" upon sensations. I cannot conceive what is meant by postulating a mind at all in such a case. And "a general form of the reaction of the body upon its own ideas" seems to me still more unintelligible. Not to mention other difficulties, it is to be noted, in the first place, that there can be no distinction of "inner" and "outer" so far as nervous stimulation itself is concerned, and secondly, that the nervous stimulations are not themselves objects of consciousness, for which alone the distinction of "inner" and "outer" can possibly have any meaning. There is no doubt a distinction to be drawn as to the way in which we obtain the conception of the law of gravitation, and the way in which we perceive time (the distinction before noticed), but so far as "operations within the body itself" are concerned, they seem to be pretty much on the same level. I imagine then, that at least for a "transcendental" view of time, there is absolutely no significance in such a distinction. But what *is* of significance in reference to the Kantian view appears, I think, in the considerations that are urged in the *Critique* as to the absurdities and contradictions into which we should be landed did we conceive of time as a real object or a real relation among reals considered as out of relation to mind,—considerations which apply with special force to views such as that of Lotze, who insists that succession, the "lapse of events in time" is not to be eliminated from such a reality, or to those more recently put forth by Professor Riehl, who argues that time is a real agent, outside of mind, for development arises apart from other causes through "*Summirung der Wirkungen*," and that thus "time changes the matter of our perception." Time, then, I would conclude is subjective in the sense that it is incapable of being interpreted in any other terms than in terms of the experience of *mind*, using the term mind in the

general sense as that for which alone all experience, whether it be that of the objective world of fact, or the empirical inner life of the finite subject, is possible.

But the analysis may be carried further than this. It has been argued recently in an able criticism of Lotze's philosophy in *Mind* that time, on Kantian principles, is a property of the phenomenal object rather than of the cognising finite subject, and this contention seems to me perfectly just. But the full meaning of this can only be unfolded in the answer to the further question—what is meant by the phenomenal? I can enter here into no detailed analysis, but it will suffice to indicate one or two results which such an analysis would yield, and which are pertinent to our question. Phenomena, then, do not constitute a world of things in themselves, which exists as a kind of *tertium quid* between the finite mind and the realm of reality. We distinguish rightly between the act of apprehending on the part of such a finite subject, and the content apprehended, but it is not a distinction of two existences. There is no content apprehended apart from the act of apprehending itself. The act of apprehending is an existent fact, a process which takes place, and of which as such we are never directly aware—to the content on the other hand no predicate of existence can be attached. Now phenomena = a combination of such contents, and to phenomena likewise we can safely say no mode of independent existence belongs. They are but ways in which we as finite beings apprehend the real—fragmentary, imperfect, and partial representations of the same. The world of reality is one world, including within it these developing finite intelligences, and the reality of this world is inadequately conceived apart from the existence and the thought of such finite minds. That the individual should come to regard himself as finite involves certain preconditions—it involves, *e.g.*, that he should draw the distinction between the real and his own phenomenal representation of it, to which latter he is all too ready to attribute a substantive existence. But it involves further, I think, just this time element in his experience that we are considering. Time then is no accident of the thinking of the finite subject, any more than the finitude of the individual subject is an accident, any more than its phenomenal representation of reality is an accident—it is a condition, an inevitable condition, under which recognition of its own finitude, on the part of the subject, is possible, a recognition, again, which is no accident, but an inevitable consequence of his forming part, as a conscious being, of a rationally ordered world. Or to put the same thing in another way, I would say our conception of the world of reality is incomplete if we omit from it that very property of temporal sequence which attaches to objects of finite experience. It is as real as the

finite subject himself, as objective as any of the concrete phenomena which enter into the finite subject's experience, but can lay no claim to a substantive existence of its own apart from the conditions of the finite subject's existence. It has then just that origin in thought or self-consciousness, as the ultimate ground of things, to which, as it seems to me, an analysis of any part of experience finally leads us.

And in thus interpreting time, it will be seen that equally with Mr. Alexander, I am making use of the conception of evolution. But I believe I am right in pushing this conception, in such an analysis, to a more ultimate point than he would be willing to go. It seems to me that the idea of Evolution as taking place by a process of "natural selection" is a category wholly inadequate to deal with the problem upon which we are engaged. It is a manifest *hysteron proteron* to account for time, as a fact in knowledge, by resolving it into other elements which themselves involve this very factor of time, for which they are supposed to account. But the idea of Evolution, when logically pressed, leads, I think, ultimately to the conception of a thought development, which is not in time, and it is under this category that we must make the attempt to conceive of reality as a whole. I leave the matter here, with the remark that that element of change, upon which Lotze lays such stress, would find in this conception a mode of interpretation.

I, too, have nearly run my clepsydra dry, but I trust I may be allowed one or two concluding observations as to some psychological aspects of the question. It must undoubtedly be admitted that so far as the history and the development of finite minds are concerned, the perception of time is not an invariable concomitant. For its perception a certain stage of conscious development is necessary, and it is a legitimate problem for psychology to inquire how that perception can be conceived to have been brought about. What are the conditions necessary in order that the individual should come to regard his experiences as taking place in temporal sequence? It is evident, too, that here we are concerned not with the highly developed conception of time which is familiar to the matured mind, but with the much simpler mental phenomenon—the recognition of a distinction between past and present.

Professor Riehl, in the valuable chapter on the "Origin and Meaning of the Representations of Time and Space," in vol. ii. of his *Der Philosophische Kriticismus*, p. 119, makes the significant remark that a complete analysis of Reproduction would reveal all the conditions of time representation. Not, he adds, that the bare fact that *Empfindungen* are capable of being reproduced is itself sufficient, for this bare fact would only explain how it is that there is a connection between

the earlier and the present impressions, but not how it is possible that this connection should be conscious of itself as such. For this it is necessary to postulate the unity of mind or consciousness. I would put the latter argument generally thus—we cannot investigate “states of consciousness” as though they were qualities or states of a material object, because there is always the peculiar double-sidedness attaching to such facts, that they are related to a subject who is in some way aware of such relatedness. It is characteristic of Mr. Alexander’s treatment that he consistently ignores this consideration, and that he does so in regard to a question in which to ignore it is manifestly suicidal. It makes one feel that the dictum which Mr. Ward has recently put into the mouth of the “modern” psychologist—“Content of consciousness as much as you like, but consciousness itself, consciousness as activity, is not our affair,” is not without justification. I readily grant that the “perception of self,” in the sense in which the subject makes his own inner life a matter of contemplation, is not an invariable accompaniment of mental life, that the mental life does not start with being a self-conscious life, that we only gradually come to self-consciousness, but this in no way militates against the fact that even the most rudimentary experience pre-supposes a subject who in such experience is conscious. There is a wide difference between such consciousness as the condition of any experience whatever, and that self-consciousness which Mr. Alexander describes as “an object of consciousness.” “Our belief,” says Lotze, “in the soul’s unity rests not on our appearing to ourselves as such a unity, but on our being able to appear to ourselves at all.”

But what connection has this with the question of the perception of time? A most important one. For there is a twofold element implied in such perception—permanence and sequence. Now the problem is not how to get permanence out of sequence—that is a self-made puzzle which can never be solved—but rather, if I may so express it, how to get sequence out of permanence. Or, to put it otherwise, the isolation of distinct contents is not originally given—it is the business of psychology to explain how such isolation comes about. If we would picture the elementary mental life we must regard its presentations as confused and obscure—as not marked off the one from the other—as but scantily discriminated or individualized. A content would not be distinguished from its antecedents nor from its consequents. The process that takes place is, as Mr. Ward expresses it, “more a segmentation of what is originally continuous than an aggregation of elements at first independent and distinct.” But a discrimination to some extent of such confused contents is essential for any distinction to be drawn between a present impression

and an idea or representation—the “continuum” must in some way be differentiated. The explanation of how this comes about is probably rather to be found in the subjective condition of the individual's existence than in the contents of its presentations. It must be looked for in the state of feeling and crude desiring on the part of the subject. One might conclude from this that the difference of feeling attending hunger and its satisfaction are the first stages in the differentiation of past and present. But the mere fact of such difference in feeling is not of course in itself enough—these two states must, in however rudimentary fashion, be held together and discriminated. Now the state of satisfaction and that of hunger can only be represented through the contents of presentations. It is, then, I conceive, through recognised differences of feeling and the association of such recognised differences with the obscurely distinguished contents of the sense presentations which are their normal concomitants, that the beginning of the recognition of time—of the distinction of past from present—comes about. In this way it may be allowed that the origin of the perception of time is in some measure to be attributed to the body as the cause of the organic feelings; but even so, the really essential feature is the rudimentary act of discrimination and comparison on the part of the subject. It is only a subject that can hold together and distinguish in a present act of consciousness, the representations of two successive events that can ever be conscious of succession, and in the most elementary stage of such a synthesis we have the germs of thought. I cannot here pursue the analysis further. The later stages in the process of coming to recognise a temporal order it is not so difficult to explain. They are involved in the general development of the inner life as a whole, whereby it comes to distinguish itself from a world of real objects, and in this development there is no doubt that the active or striving element of the subject performs a most conspicuous part. But I do not attach the same value to Mr. Ward's theory of “temporal signs” as Mr. Alexander does—(1), because I cannot conceive of Attention in the apparently highly-developed form in which it is regarded in this connection, as a primitive fact in the mental life, and (2) because I think the explanation of the distinction between an impression and an idea turns not so much upon the vividness of the one and the faintness of the other (a view which I agree with the opener is untenable), as upon the fact that a perceptual content is accompanied with a variety of sensuous or corporeal feeling, resulting from the stimulation of the sense organs, which is for the most part absent when the presented content occurs in the form of an idea. It may be that Mr. Ward's analysis is a fairly accurate one of the way in which the more complex and later temporal localisations are brought

about, but our question has reference rather to the origin of the perception of time.

THE UNIFYING PRINCIPLE IN THE MORAL IDEAL.

By Rev. C. J. SHEBBEARE, B.A.

THAT "Idea of the Good" which Plato makes to be the goal of all human enquiry he describes as being such that he who has knowledge of it knows thereby all the particular commands of the moral law and also the relation of each of these to the moral law as a whole. The Guardian of the State, if he knows the Idea of the Good, is capable of ordering rightly all the details of the administration of a State, down even to the minute regulation of the life of the individual citizen: and this same knowledge is spoken of as enabling him to understand the relation of specific kinds of good things, such as the just and the beautiful, to the good in general. "You have often been taught" says Socrates to Adimantus (Republic 505A) "that the Idea of the Good is the highest object of knowledge, and that it is by calling in the aid of this Idea that acts of justice and all other such matters gain whatever worth and value they possess." Again, "All other knowledge without the knowledge of the Idea of the Good is no profit to us" (505A). And again, "About a matter of such immense importance as this it cannot be allowed that the best of our citizens to whom the management of the whole State is to be entrusted shall be in the dark." "The man who does not know the relation of what is just and beautiful to what is good" literally "how what is just and beautiful comes to be good" "is not a very valuable guardian of what is just or beautiful. And I suspect that one cannot know just and beautiful things properly without knowing their relation to the good. But will not our State be ordered in a perfect manner if the man who does understand all this is set as its guardian and overseer?" (505E-506B). Again (517C), "A man must see the Idea of the Good, if he is to act reasonably either in private or in public concerns." Indeed the teaching of all that large part of the Republic which deals with the education of the Guardians of the State is to the effect that for a perfectly governed state we need guardians who are able to order the lives of the citizens in great things and in small in accordance with wholesome rules of life, of which some can be put down on paper and some cannot; and that the guardians will be able to discern infallibly what rules are to be allowed and what are to be rejected, if only they are acquainted with this highest object of knowledge, the Idea of the Good.

I suppose that a complete theory as to what Plato meant to teach by this doctrine of the Idea of the Good is a thing which few men would dare even to form in their own minds, much less to deliver before a learned society. But there is at any rate one belief of Plato's which we may safely infer from these passages which I have quoted. It is clear that, if the knowledge of the Idea of the Good is such, and is alone such, as to enable a man rightly to order the details of his own life and other people's, then all the apparently separate principles by which we regulate conduct, the apparently separate laws of the good and the beautiful, are not in reality separate but are connected, in the sense that they may all be derived from one common source, that there is a certain single piece of knowledge from which every one of them may be known, and apart from which they cannot be truly said to be known; and that so the apparently separate statements "This is good," "That is good," "The other is good," must be regarded as parts of a whole, and as fitting, so to speak, each into its place in a single scheme. Thus, according to Plato, we can possess knowledge which shall unify for us all our beliefs as to the manifold demands of the moral ideal.

Plato does not profess to show very clearly of what nature this Idea of the Good is, how we become acquainted with it, and how we deduce from it the principles of conduct. All this branch of science is *συχνὸν ἔργον*, no easy business. But his main contention that the laws of morals hang together as a unity, that knowledge of part of the moral ideal cannot be wholly independent of knowledge of the rest is a doctrine clear and simple enough as far as it goes, and is a position with which everyone must be strongly disposed to agree. Even ordinary language bears witness to belief in the unity of morality. We may sometimes speak of "moral laws" or "God's laws," but much more often of "the moral law" and "God's law": and we speak always of the moral faculty or the moral sense, never of the moral faculties or moral senses. We speak of the faculties which give us knowledge of what *is* as many: of the faculty which gives us knowledge of what is good as one; hereby expressing the conviction that the many statements, with which our reason presents us, that this or that is good, are connected in some deeper manner than merely by their possession of a common predicate.

But although we should all be so far disposed to agree with Plato, we must yet ask the question whether we do really find in ourselves any faculty which is able thus to unify our moral knowledge, to show the common principle on which it all depends, and how the knowledge of one moral rule is connected with the knowledge of others. We may believe that our moral knowledge ought to be able to be reduced to unity in this manner: but has

human reason, we must ask, gone any way towards accomplishing this work?

In two ways at least the attempt to do this has been made. It has been thought of as possible that we might unify our moral knowledge by means of a logical conception; that we might put into words a definition of good such as would by itself enable us to know fully to what particulars the quality of goodness belongs. It was as an expression of this hope that Aristotle interpreted in the first book of the "*Nicomachean Ethics*" the teaching of Plato and the Platonists on the Idea of the Good. And he says that, so far from getting a logical conception which will account for the goodness of all good things, we cannot get a logical conception which will account for the goodness even of the more limited class of things which are ends in themselves as distinguished from those which are good as means to ends. Taking for granted that sight, and practical wisdom, and certain pleasures and honours, will be allowed to be ends in themselves he proceeds to argue thus: "If wisdom, honour, and pleasure are good things in themselves, it will be necessary (that is, it will be necessary if the Platonist theory is to be maintained) that the same account or definition of goodness shall appear in each of these, just as the same definition of whiteness does in snow and in white lead. But the accounts of the goodness of honour, of wisdom, and of pleasure, are quite different one from another." Literally, "Their definitions in respect of their goodness are different" (*Eth. Nic.* 1, vi, 10-11). Thus we can get no one conception which will for this purpose cover them all.

And this reasoning seems unanswerable. We cannot put into words any account of the goodness of honour which will show likewise why pleasure and wisdom are good. There is in fact no logical bond between the knowledge of the goodness of the one and the knowledge of the goodness of the others. It is thus quite impossible to get any logical generalisation which shall sum up the whole of ethical knowledge.

I believe, however, that in spite of Aristotle some attempt to do this has been made. I do not know enough of the history of philosophy to know whether the attempt has been carried out in a systematic manner. But I have twice recently met with expressions of opinion which seemed to contradict Aristotle on this point. I saw it said in a circular of the West London Ethical Society, dated July, 1892, that one function of a "Science of Right" is to "connect" moral laws "in a logical system of thought." And once in this Society, before I knew its members by sight, I heard a speaker lay down that the particular rules of morality could be deduced from the conception of man as a rational being. If I

understood rightly the drift of those two statements, they seem to me to be in conflict with Aristotle and to be answered by him.

This, then, is one way in which the unification of the moral ideal has been attempted. Secondly, it has been attempted to give morality that kind of unity which belongs to a machine, of which all the parts subserve a common purpose. Hedonism represents all moral action as a means to pleasure, and the moral law as a coherent system of rules of skill. This view need not delay us, since it is not likely that anyone here regards morality in this light.

But this distinction of means and ends may serve to show us more exactly what the question is which confronts us. We start with the understanding that, though the word Good may be rightly applied to what are merely means, yet that which our moral reason, in the strictest sense of the word moral, pronounces to be good is good as an end: and that the moral laws which we are concerned to reduce to unity are those which declare certain actions or other events to be good in and for themselves. The question then which we have to ask is, Are we in possession of any faculty which can connect all these good things which reason represents to us as ends, in such a way that our belief in the goodness of all of them can be seen to be able to be derived from one single piece of knowledge, and that they can be shown to fit together as parts of a whole, joined not merely by the fact that all are good, but by their essential affinity and congruity with one another? If we are in possession of any such faculty, it would, I think, at least be true to say that its action has not attracted much notice.

As a step towards answering this question, let us ask the smaller question, Have we any faculty whatever which connects in this way things which it yet represents as being all ends in themselves?

About the right answer to this question there can, I think, be no doubt. We must all recognise the artistic faculty as being one which finds unity among what we yet reckon severally as ends, as when we discover unity of style among the many works of one artist or school of artists, or again when we recognise unity of design dominating the many details of any single work such as a picture or musical composition. In some of the greatest pictures this unity of design is the very thing which most fixes our attention. Take for example that well-known picture by Rubens which hangs over his own grave. Here, I think, what one admires above everything else is the power with which part is subordinated to part and all parts to the whole; the perfect harmony and proportion in the relation of every one of the details to every other. The action of the picture is not too stirring for the colouring, nor the colouring too bright for the action. What needs to be made prominent is just enough prominent; the rest

shades off by gentle gradations into the background. In particular there is such a delicacy in the balance and symmetry of colour and line that the picture must suffer distinct loss if a colour were heightened by a shade, or any one line lengthened by an inch.

Here, then, in a picture like this, we are most clearly able to perceive a relation of organic unity among a multitude of parts. But yet each of the elements which we thus join together is to be regarded as an end and not as a means. They are not means one to another, nor are they all mere means to the whole, as they would be if each were valueless in itself and valued only as going to form that complex which we call the general effect. But it is not the whole only that we value; we value the separate parts too. For example, the lines of a picture are not a mere dead mass whose purpose can only be seen when the whole effect springs to life at the meeting of line and colour, as is shown by our taking some pleasure in the picture as reproduced in an engraving. To take an example from another art; in an air in music we find beauty in each phrase or section (or whatever word you take to describe what we may call the *unit* in melody), or again in a longer composition in each Movement; and yet each of these parts is merely one element, with its definite place in relation to the other elements, in a complex whole. In a word, with regard to the parts of a work of Art, though we are not fully satisfied with anything short of the whole work, we do yet care for and take pleasure in the separate parts for their own sakes. One can no doubt break up a work of art into parts so small as might justly be called valueless but for their context, as when we break up music into its single notes; but yet there are elements into which it can be separated, such as those of which I have spoken, which have in their separateness a distinct artistic value, although we should never think of them as standing alone. Thus the separate judgments which direct the artist at each point of his work—this pigment should be placed here, this line ought to end there—are all connected and related by his conception of his work as a whole.

But can anything further be said as to the nature and mode of action of this unifying faculty in Art? I have described it as a faculty by which we discover symmetry, that is, due proportion between line and line. It is thus able to measure one line against another, showing how long each should be in relation to its neighbour. But of what nature is this measurement? The faculty of discovering the proportions which lines in a picture ought to bear to one another is utterly different from the faculty of judging at sight what mathematical proportion is borne to one another by two given lines. And the difference consists mainly in this, that, while the mathematical faculty of measurement does not depend in the least upon feeling or

emotion, the artistic faculty of measurement depends upon these altogether. As everyone will admit, it is impossible to judge in Art, if you are absolutely cold to, and without interest in, the standard of beauty. It is only by being in that state of sensitiveness in which a wrong proportion *offends* you that you can have any knowledge as to what is the right proportion. And as it is with proportion so it is with congruity in general. There may be artistic incongruity where there is no logical or other sort of incongruity, and unless you are offended by the incongruity and feel an inner demand for what is congruous you can never be made to see where the incongruity lies. Thus this faculty which unifies for us the parts of a work of art is a faculty absolutely inseparable from feeling and passion. Feeling is in fact an integral part of it. It can only *judge* of congruity so far as it *cares* for congruity. And so we find that we judge in Art by our power of feeling a certain complex passion; a desire for a plurality of separable things, such as lines, figures, colours, or musical phrases, which we cannot regard as being desired otherwise than as ends, and which yet are desired as parts, in that the feeling which demands them does not find full satisfaction in anything short of the whole of them. It is thus clearly one single, though complex, feeling with which we are concerned. A complex state of feeling of this kind we most commonly speak of as a Mood. And it is by such a mood not only that the critic judges of art, but that the artist produces it, being impelled by it to form the first outlines of his work and then led on from point to point by the sense that what is already done requires something more, and not at rest till he knows that all the many demands of his passion are fulfilled.

It seems to me that there are two things which should be specially noticed about these moods which guide us in Art. In the first place, they belong as unmistakably to the realm of feeling as the sense of heat or hunger does. The artistic passion may be felt by different persons, or by the same person at different times, with different degrees of intensity, just as heat, or anger, or love are felt at different intensities. But, secondly, this passion enables us to perform certain functions which have every claim to be called rational. For example, the artistic faculty brings particulars under a universal law: for, though the artist may commonly regard his inspiration as guiding him in his choice of the colour or line which is wanted on this particular occasion, yet there is always the consciousness in the background that the principles of taste are universal laws, and that the very same rule would have to be followed if ever an exactly similar conjunction of circumstances should arise. Again, this faculty perceives relations between parts of a work, relations, for example, of proportion or congruity; and it is the feeling itself which

shows us these relations, the congruity or incongruity is *felt*: but to perceive these is a rational function. And we may understand still better the rational nature of this faculty by observing that by means of it we can see, as I have said, unity of style in the many works of one school or master. We say that we recognise works as being the works of one man or of one age, because all are dominated by the same principles of taste; and we recognise this unity of style among pictures whose subjects are wholly different, or in musical compositions which have not a phrase in common. Thus these principles of taste are shown to be general—and therefore rational—since they are recognised in their application to widely different sets of particulars. But yet they cannot be known apart from feeling. It is impossible to put them into words. In fact we can understand the principles which govern an artist's work only just so far as we can throw ourselves into the same state of feeling as that in which he has worked, and thereby can discover what principles of art and what particular artistic forms are in harmony with his feeling and what jar against it. Such knowledge of the principles on which an artist works is commonly spoken of as insight into the *Spirit* of his work. I do not see how in a case like this anyone can deny that we exhibit a faculty in the constitution of which reason and emotion are inseparably blended; since in recognising unity of style in works whose details differ widely we are manifestly employing highly generalized principles (for those must be highly generalized principles that can cover such diverse particulars); and again we cannot proceed without feeling, since these principles are unmeaning to anyone who has no sympathy with the work they govern.

Such, then, is the faculty which guides us in Art. We may now return to the question with which we started, and ask whether there is anything like this in Ethics as a whole, whether we can reduce to unity all our ethical judgments—all our judgments as to what is just, or courageous, or temperate, or beautiful, and so through all the other words which express kinds of goodness—in the way in which we have found that we reduce to unity certain collections of æsthetic judgments, namely, by seeing that it is by the influence of one mood or feeling, which mood is a single though complex object of knowledge, that we are led to form all of any one such set of judgments.

Let us first observe what effect it would have upon our view of Ethics if we were to decide to answer this question in the affirmative. We have seen that in a great work of Art there is such coherence among the parts that if one suffers all the rest suffer with it. If, then, the moral ideal as a whole is in this respect like our ideal of a consummately finished picture we shall find such coherence among

the moral laws that full knowledge of any one cannot be quite independent of knowledge of the rest, and that a man who is possessed by utterly wrong principles of moral judgment on one matter will show signs of a corresponding taint throughout. There will be a relation of interdependence among moral judgments. Our beliefs will act and react upon one another, just as, in Plato's view, good taste in music proceeds from good moral disposition (400D), and in turn leads to good moral disposition again (424C-E). In Art we perceive the affinity that subsists among beautiful objects from the fact that by the study of particular natural forms we are able so to learn the general principles of natural beauty that, for example, a painter can paint a picture which is not a reproduction of any actually existing natural scene, but which has the æsthetic characteristics of a natural scene, and is, as we say, true to Nature in Spirit. If we possess a similar faculty for the whole sphere of ethical knowledge, we ought to be able to gain, from the contemplation of such pieces of moral knowledge as we already have, such an insight into the Spirit of the moral law as would lead us on to a knowledge of all the still unknown particular commands which the moral law contains, so rising from particulars to the universal and thence descending to particulars again, much as Plato describes the process. Again, just as the artist can present to himself a concrete image of the work to which his passion is urging him on, while to the same passion is due his knowledge of those abstract principles of taste of which I have spoken, so if we could stir up in ourselves a moral passion, similar to his artistic passion, its office would be to furnish us both with a concrete picture of the world as it ought to be and also with wide and general principles of morality.

The question then that remains is whether we have in Ethics a power similar to that which we show in matters of Art?

A strong argument in favour of believing that we have such a power seems to me to be the fact that we all recognise that there is congruity among the moral laws, that we always regard it as natural that a man who has been accustomed to do what is right in certain circumstances should discover by an instinct what is right if he is suddenly transferred to circumstances of a different kind, that we believe in principles of action of wider application than any written law, the principles, as we say, of natural good taste. We thus recognise a kind of congruity and consistency among the rules of conduct quite unlike logical consistency, which we can only call ethical consistency. But I do not see how this ethical congruity can be discovered except by good feeling. We must have sensitiveness of taste if taste is to guide us. It would seem then that this sense of the mutual congruity of the parts of the moral law must be due to

our having for the whole field of morals a faculty just similar to that we have seen to exist in the field of *Æsthetics*.

The main objection to such a view is likely to be put by asking how it is, if this is so, that we are ever in doubt on moral questions, that we perceive, as we undoubtedly do perceive, gaps in our moral knowledge. A faculty, it will be said, which professes to show us the whole moral law as a unity, can only make good its claim if it can deliver to us all the rules of moral life, and arrange them in their due order.

To this I should answer that in Art, with regard to which we have seen that we possess a faculty of this kind, we do not always expect the image of the work to be done to stand out clearly and in fulness of detail in the mind of the artist all at once; an artist may have, to begin with, a very dim and vague conception of the whole which he is attempting to bring into being. For example, the method by which Beethoven worked out some of his greater compositions is a matter of history. In his sketch-books are found, first, mere outlines of the movement he is at work on, rough fore-shadowings of the principal themes, and so forth; these are slowly shaped, and the outlines filled in; and at last, by an almost endless process of the trial and rejection of one phrase after another till the right one is discovered, the movement reaches its final form. Now this process of harking about for the right phrases shows that Beethoven must have had at the very beginning some dim knowledge of what he wanted to attain; his rejection of phrases which present themselves to his mind proves that, though he does not yet know what is the phrase which will satisfy him, he knows enough of that at which he is aiming to be sure that these are *not* that phrase. He has, in fact, partial and negative knowledge of his ideal, but not full and positive knowledge of it. And this state of mind just resembles what is our state of mind with regard to knowledge of the moral ideal: we are conscious of some amount of clear knowledge of it, and also of many gaps in our knowledge of which we know little except that we are at present unable to fill them up. Indeed, our sense of the gaps in our moral knowledge, so far from showing that we do not recognise it as a unity, shows on the other hand that we do. For, if our moral knowledge came to us in wholly detached and independent propositions, how should we be aware at any point that it was not complete? It is only because we feel that the separate pieces of knowledge fit into their places in a scheme that we miss each from its place if it is absent.

Thus, to sum up, it would seem that we are bound to represent our moral knowledge to ourselves, first, as forming a connected whole, and, secondly, as brought into unity by means of a faculty,

similar to that with whose operation we are perfectly familiar in the field of Art, a faculty in the constitution of which feeling and reason are inseparably blended, in which it is feeling itself which shows us laws and relations. Lest I should be misunderstood, I will add that by speaking as I have done of our knowledge only of the moral law, and looking at the matter solely from the subjective side, I do not at all mean to imply that I regard the truths of morality as existing only in the mind, which would be an error similar to that of the Conceptualists. The difference between good and bad Art would exist just as much, if no one perceived it, as it does now; and, similarly, the faculty in man which reduces moral beliefs to unity I should regard as discovering the unity of morality, not as making it.

I am sorry that it has been necessary to my purpose to make so much use of language which belongs to the criticism of Art; for, though to look at works of art may be well enough, to listen for long to mere talk about them is one of the most irritatingly distressing experiences with which I am acquainted. I make no apology to the members of the Society for having subjected them to so much of this torture this evening, only because I know that the Aristotelian Society does not meet for pleasure but for serious study.

TIME-MEASUREMENT IN ITS BEARING ON PHILOSOPHY.

By SHADWORTH H. HODGSON.

I.

It is naturally of great importance to a Society like ours that we should have clear and definite ideas on the position which philosophy takes up, or ought to take up, in relation to the positive sciences, so as to have wherewithal to reply to any one who asks us, from the scientific point of view, What, then, after all, does philosophy profess to do, more than has been done, or may be done, by science? Now there is a certain circumstance connected with the scientific measurement of Time, the bearing of which on the nature and position of philosophy, and of its relation to science, I propose to bring before you this evening, in hope that it may conduce to clearness of ideas on this subject.

The circumstance which I have in view is this, that the ascertainment and adoption of any unit of time-measurement which shall be generally applicable to the time-measurement of events, that is,

to the determination of the relative lengths of time which they occupy, depends upon the previous acquisition of some definite knowledge of the movements of physical bodies in space. By an unit of time-measurement is meant a definite length of time such that it is everywhere and always the same, or equal to itself in every recurring instance of it; so that the first ascertainment of such a generally applicable unit involves the ascertainment of equal times in successive and not only in simultaneous events or series of events.

I do not propose to offer any fresh proof of this doctrine; I think I may assume it as sufficiently established. First I may refer in support of it to a paper read some years ago in this Society by Mr. Hawksley Rhodes, on "The Scientific Conception of the Measurement of Time," a paper afterwards published in *Mind* for July, 1885, and now to be found in vol. x, p. 347, sqq. Comparing the discovery of time units with units of spatial magnitude, Mr. Rhodes says (p. 352):—

"Now the accidental circumstance—accidental in the sense that we can see no reason why it might not have been otherwise—that bodies do not undergo rapid changes in their figure and magnitude, has enabled us to embody in durable material a permanent record of the particular length or spatial magnitude which we wish to use as a standard for comparing together spatial magnitudes at different times and in different places. In like manner the discovery or construction of standards for the measurement of time depends upon the no less accidental circumstance that bodies have been found to repeat similar movements in uninterrupted succession, or have disclosed properties to the patient investigation of man, which have enabled him, through a skilful use of his sole executive faculty, that of altering the state of aggregation of matter, by putting the right sort and the right amount of matter into the proper relative positions, to create structures which automatically produce a continuous succession of events—each as like the other as one coin is to its fellow turned out of the same press, and not only produce them, but register the number produced. I refer, of course, to such instruments of precision as clocks and chronometers."

It will be observed that in this passage the circumstance of bodies repeating similar movements in uninterrupted succession is the circumstance pointed out as enabling the ascertainment of equal portions of time. This is entirely in harmony with a Definition of Equal Times put forth by a scientific authority of the highest order, the late Professor Rankine. In his "Outlines of the Science of Energetics," a paper read before the Philosophical Society of Glasgow in 1855, which was published in the Proceedings of that

Society, and is now to be found in his *Miscellaneous Scientific Papers*, pp. 209 to 228, the last section but one, Section XIX, runs thus:--

"The general relations between energy and time must form an important branch of the science of energetics; but for the present all that I am prepared to state on this subject is the following DEFINITION OF EQUAL TIMES—

"Equal times are the times in which equal quantities of the same kind of work are performed by equal and similar substances, under wholly similar circumstances."

In this definition of equal times it is clear that some previous definition or conception of *work* is involved, and therefore also of *mass*, *force*, and *energy*, which are involved in that of *work*. We see from the mention of "equal and similar substances" operating "under wholly similar circumstances," what precisely it is which renders a knowledge of the movements of physical bodies indispensable to attain a knowledge of equal times, or of an unit of time-measurement which shall be generally applicable. To observe equality in lengths of time it is necessary to have two or more lengths of time brought together simultaneously, that is, in the moment of observation. We can go so far as this in the case of sensations which do not occupy any spatial extension at all, as in the perception of sounds which are simultaneously heard. But this does not enable us to fix on any definite length of time which is generally applicable to the measurement of sensations, or indeed of any sensations other than those in which the equality is immediately observed. In order that the observed equality shall be generally applicable, it must be capable of being fixed in some event which can be repeated without appreciable change, or with change which is infinitesimal in amount. This is only possible when the equality is between events or changes in physical bodies, the sameness of which in point of length of time is guaranteed by the sameness of the bodies and the sameness of the circumstances under which they are observed, in precisely the same way as the sameness in length of the foot or the inch is guaranteed by the sameness of the physical substance, or rule, which is used as the standard of measurement.

I must observe, however, to avoid misconception, that I speak only of the initial establishment of a time-unit, not of those derivative time-units which have been adopted, or may finally be adopted by science, as the most accurate and advantageous, and to which, conjointly with some corresponding unit of spatial length, the measurements even of force and mass may ultimately be referred. Thus Lord Kelvin, in a lecture on "Electrical Units of Measurement" (*Popular Lectures and Addresses*, vol. i, p. 97), brings before us the

idea that the measurements of mass and force may be founded on the measurement of spatial length and time only. If we attempt, he says, to work out this idea in detail, "we immediately find that the square of an angular velocity is the proper measure of density or mass per unit volume; and that the fourth power of a linear velocity is the proper measure of a force."

In giving the measurement of mass and force in terms of velocity, we plainly give it in terms of lengths of space and time, velocity meaning the ratio of the space traversed to the time spent in traversing it. But this does not touch the question as to how a time-unit is originally acquired and ascertained. It pre-supposes the definition of velocity as a ratio between the space and the time of a movement, and in showing that this definition corresponds to reality, or is generally applicable, some measurement of equal lengths of time is pre-supposed. Some time-unit derived from the observation of movements in physical bodies must be used in measuring the velocity of these or any other movements.

When, however, the velocities with which bodies move have once been measured, we may find in those velocities a measure of the force and the mass of the moving bodies. It may very well be that, velocities having been once measured and found to depend on the mass, force, and relative position, of moving bodies, the velocities may themselves afford a measure of the mass and force of the bodies from which they are derived. Still this would not show that some less perfect measurement of mass and force has not been employed in determining the time-unit in which a velocity must in any case be expressed. In this way we might very well arrive at what Lord Kelvin calls the "elimination of the properties of matter from our ultimate metrical foundations" (p. 112), without in any way denying that some definite knowledge of those properties has been one of the essential steps whereby we have arrived at the metrical system, from which in the end they are eliminated. Further light will be thrown on this point as we proceed.

We see, then, that the ultimate foundations of physical science, the ultimate conditions which make its measurements possible, are traceable not to pure time and space relations only, but also to permanent qualities of physical bodies which permit their geometrical measurement, and to constantly recurring motions, dependent on those permanent qualities, which permit their time-measurement. There is no branch of pure mathematic which can furnish a generally applicable unit or standard of time-measurement, any more than of space-measurement or geometry. Physical bodies and their motions as real existents must be assumed by physical science to begin with, and that not only as being the object-matter which it deals with, but

also as the source which supplies its units of measurement, the tools or implements, so to speak, by which all measurement, which is the special work of science, is performed. The existence of physical bodies and their motions is thus a pre-requisite even for the measurement of pure or abstract time, supposing that measurement to be applicable to time universally, or in all its parts.

Having thus, I hope, made evident the nature of time-measurement and the position which it holds in physical science and in mathematic, I turn in the next place to the bearing of these facts on philosophy. And first as to the relation which they indicate between philosophy and physical science, the boundary which they establish between the two. Physical science is a knowledge, a knowing, and therefore is a part, or mode, or particular kind of consciousness. It is in this character, in its nature as a knowing, that it is connected with philosophy; for this also is a knowledge, a part, mode, or particular kind of consciousness; and the point is, that it is that kind which has the *whole* range of consciousness, or of knowledge, or of experience, as its object-matter. It therefore has physical science itself, in its character of a knowledge, as one part of its object-matter, one portion of its domain. The world of matter is the object of physical science, the world of physical science is one of the objects of philosophy.

Here the circumstance attending time-measurement which I have brought into view becomes significant. It marks the boundary, the *locus* of transition between physical science and philosophy, and thus ascertains more definitely their relative positions. The process in consciousness by which the perception of physical objects is originally attained is a part of consciousness which lies outside the domain of physical science, because the existence of those objects is pre-supposed by science as already known. But it lies within that of philosophy, being one of the experiences which it is its special function, as subjective analysis, to examine. Hence the importance of the circumstance with which we began, the circumstance that the establishment of a generally applicable unit of time-measurement pre-supposes a knowledge of the movements of solids; since it marks the point in the analytical theory of phenomena or experience generally, at which physical science stops short in its analysis, but beyond which philosophical analysis penetrates.

All modes of consciousness occupy time, but only some modes of consciousness occupy space and time together, and these latter it is into which perceptions of physical bodies and their motions can be analysed. Both classes of perceptions and their relation to each other, in the analytical theory of the whole, belong to philosophy. It is only the latter class of perceptions, and that only in their

objective or existent character, that is to say, in the form of physical bodies and their motions, and not *qua* perceptions or complexes of perception, which belongs to science. In other words, physical science begins with, or stops short in its analysis at, physical bodies and their motions as its ultimate data; philosophy carries on the analysis of these data into the perceptual and conceptual elements which compose our knowledge of them. Physical science, therefore, considered as a knowledge or knowing, does not carry its analysis back to the ultimate data which are the lowest known elements of experience.

At the same time—and this is the circumstance which of all others throws the most light on these somewhat complicated relations—the perception of a concrete world of physical objects and their motions is, in order of history, the earliest perception of which any man has conscious memory. It is the historical, but not the analytical, first thing or starting point in knowledge. A world of existent physical objects, including both persons and things, is the earliest datum within conscious memory to which any one can go back in tracing the development of his knowledge. We can remember no experience prior to it.

But the very earliest and crudest perception of this concrete world involves and includes some degree of measurement, some perception of the relative sizes and distances of objects, as well as of the relative durations of particular processes and events. Before we begin to measure accurately or to analyse consciously, we are already possessed of some rude measurements, which form the basis of our further operations, and this is the source to which we must refer in explanation of that circumstance attaching to time-measurement with which we began. It dates back to a state of knowledge which is the first or earliest in the history of knowledge, though far enough from being among the ultimate elements of knowledge in order of analysis. It is not to philosophy, but only to physical science, which begins with physical bodies as its ultimate data, and to mathematic so far as it depends on this, that the circumstance in question can take rank as an ultimate element in analysis.

II.

The foregoing considerations, which aim at elucidating the mutual relations between philosophy and physical science, lead up to the perhaps still more interesting question of the relation between philosophy and pure mathematic, that is, calculation and geometry, the abstract sciences which, like philosophy, are also, analytically

speaking, prior to the physical sciences which treat of matter and its motions in the concrete. I call them analytically prior, because they deal with abstract space-relations, abstract time-relations, and abstract number-relations, which are the elements into which all measurement in the abstract, apart from the things measured, may and indeed must be resolved; physical mass, force, and motion, in all their endless varieties, being the things measured. In other words, measurement, taken as a mode of *knowledge* of things, has abstract space-relations, abstract time-relations, and abstract number-relations, as its constituent elements or components, which are discoverable in it by analysing it in thought.

Historically speaking, actual measurements in the concrete precede the knowledge of abstract relations of space, time, and number, and enable us to arrive at them. Analytically speaking, the knowledge of these abstract relations precedes and conditions the knowledge of what the nature of measurement itself is. The order in which knowledge is acquired is one thing; that is the order of history or genesis of knowledge. Quite another thing is the order in which the elements composing that knowledge are combined in mutual dependence one on another; this is the order of nature, meaning the nature or analysis of knowledge, which is sometimes, but not so properly, spoken of as the logical order. Actual concrete measurements have been already shown to begin with, pre-suppose, or have as an indispensable analytical element, the adoption of some generally applicable unit or standard. But it is with elements which are analytically prior to any such actually adopted unit that we have now to do, elements which are involved in having an unit at all. These, as I have just said, are the pure or abstract relations of space, time, and number, which are the object-matter of pure mathematic. And the question at this point before us is, What is the relation between philosophy and that pure mathematical science, of which these abstract relations of space, time, and number, are the object-matter?

In answering this question it is necessary to put entirely aside all theories of what is called an *a priori* origin of these relations, an origin prior to experience, whether in the nature of the Mind, or in the nature of Thought. And for this reason, that such theories take the relations in question out of the domain of philosophy altogether, philosophy being the analytical theory of experience as such, and confine themselves to maintaining some hypothesis as to their origin or genesis, which is the special business of psychology. And therefore, even supposing any such theories tenable, they would not furnish an answer to our present question, which concerns the relation between mathematic and philosophy, but only to a question

of a very different order, the order of the history or genesis of mathematical knowledge, which is a question of psychology. If it were the business of philosophy to occupy itself with hypotheses concerning the nature of the Mind, or of the Thinking Principle (except so far as experience may be appealed to in proof or disproof of their nature or existence, which plainly is not the case here), it would have no *locus standi* in the estimation of any man of sense. For the analytical scrutiny of experience without hypotheses must obviously precede the entertainment, and *a fortiori* the establishment, of any hypothesis whatsoever. It is because the existence of the Mind, or of the Thinking Principle, has been held to be an ultimate and self-evident fact, and not an hypothesis, that the enquiry into its nature has been held to belong to philosophy and not to psychology.

The question before us, then, concerns the relation between mathematic and philosophy, taken in this large sense of the scrutiny of experience without hypotheses. Approaching it in this way, the answer is precisely the same in kind, as in the former case of the relation between physical science and philosophy. The pure mathematician takes abstract space-relations, time-relations, and number-relations, as his ultimate data, or as the special objects with which he deals, in just the same way as the physicist takes physical bodies and their motions as his given objects. I mean that he takes them as given facts, that is, in their objective or existent character, notwithstanding that, as abstract, they need thought to discriminate them from the world of physical objects with which, in the concrete, they are bound up. They are the world which is objective to pure mathematic, just as the physical world is the world which is objective to physical science.

But here again, just as in the case of physical science, the same consideration determines the same result. Pure mathematic is itself a knowledge, a mode of knowing. And in this character it is that it is objective to philosophy, which in virtue of the universality of its range has pure mathematic, but only in its character of a knowing, as one portion of its domain, one part of its object-matter. The world of the abstract relations of space, time, and number, is the object of pure mathematic; pure mathematic itself is one of the objects of philosophy.

The business of philosophy with those abstract relations of space, time, and number, which are the object of pure mathematic, is therefore quite different from that of the mathematician. The mathematician takes them as data already abstracted from the concrete world of physical objects, the philosopher takes them as results of abstraction, not from the concrete world of physical objects, but from

the concrete stream of consciousness, the content of which comes in the form of sensations, perceptions, memories, attentions, thoughts, images, feelings, and so on; or in other words, from that total content of consciousness or experience, out of which the perception of a world of physical objects has itself been built up. The *knowing* of the abstract relations of space, time, and number; the formation of the ideas of abstract space, time, and number; the abstracting process itself;—this is what philosophy has to do with, not with pure geometry or pure calculation. The roots or elements of these processes in experience, not in the nature of an hypothetical Mind or Thinking Principle, are what philosophy endeavours to investigate. There is therefore no clashing, or need be none, between the two domains of pure mathematic on the one side and philosophy on the other.

At the same time it will be evident that in these abstract relations of space, time, and number, we have before us some of the ultimate or most rudimentary of all the elements into which it is possible to analyse experience. They are among the most rudimentary and at the same time most universal of all its components. In them we reach as it were the deepest basis of all knowledge, the common basis in experience both of science and philosophy. The two ways of dealing with them, the scientific and the philosophic, differ or diverge only in consequence of the different sides, figuratively speaking, on which each method chooses to approach or to regard them; the scientific method choosing to regard them as characteristics abstracted from an existent physical world, which is called approaching them on their objective side, and the philosophic method choosing to regard them as characteristics abstracted from the total content of consciousness, *pari passu* with the building up of the complex perception of an existent, which is called approaching them on their subjective side.

III.

Two great departments of science have now been touched on, that of pure mathematic and that of concrete physics; and the fact concerning time-measurement, with which we began, has enabled us to determine the relation in which philosophy stands to them both. It is one which we may figure as that of a pair of parallel lines, one running on the objective side, the other on the subjective side, of one and the same series of facts or phenomena; one line, the scientific, taking the facts in the character of independently given existents; the other, the philosophic line, taking them in the character of

percepts or facts of consciousness. That the facts thus examined do in reality bear both characters, and that inseparably, is evident from the circumstance that science is itself a knowledge, a knowing, a mode of consciousness. It is the essence, the proper business, of science to ask for evidence, and there is no evidence of any fact but in consciousness; the word *evidence* has no other meaning. There must be some *reason* in consciousness for taking facts as independently given existents, as they are taken in science; and this reason, it may be added, it is one of the chief tasks of philosophical analysis to discover and assign. It is, therefore, impossible to contend on the part of science, that the independent existence which science attributes to facts is an absolute existence beyond or above evidence. The existence of facts can be established only by evidence, that is, by consciousness.

But this parallelism between philosophy and the two departments of science now spoken of has far-reaching consequences. It covers not only the whole extent of Space, Time, and Number, but also, within those limits, it covers the whole extent of physical or material Nature. Physical science does not stop short at Mechanics; it includes a whole group or series of sciences, with their subdivisions into more specialised groups, every one of which seeks its explanations, that is, the intelligibility of the laws of Nature which it discovers, by referring them to mechanical laws and endeavouring to exhibit them as specialised cases of mechanic.

First and foremost, then, after pure mathematic, stands the science of Mechanic, in its two great branches, Static and Dynamic, applicable to all states, whether solid, liquid, or gaseous, of what is commonly called ponderable matter—a science which in its entirety may be considered as a particular exemplification or exhibition, by means of ponderable matter, of the abstract laws of pure mathematic.

Secondly, we have the great group of sciences which study the structure, properties, and motions of the all-pervading Ether, to which are referred, at the present day, the phenomena of Light, Radiant Heat, Electricity, and Magnetism.

Next comes Chemical science, which studies the molecular and atomic constitution of matter, the ultimate kinds of matter dependent on this constitution, with their mutual affinities and repulsions, and the various modes and laws of the composition and decomposition of bodies which are their result.

Fourthly, there is the still more specialised group of Biological sciences, those which deal with the properties and laws of organic, vitalised, or living matter.

And, lastly, there is that still more specialised science which

deals with living organic matter so far as its action is attended with sentience or consciousness, the science known as Physiological Psychology.

Now, of course, when I maintain that philosophy runs parallel to all this series of groups of sciences, I do not mean to maintain that there are departments of philosophy corresponding, each to each, to the several departments of science, included in this long series of groups. This would be a palpable absurdity. It would either rob philosophy of its independence and value as a special branch of knowledge, by making its method and organisation a mere copy of the scientific, or else it would erect departments of a *priori* science in lieu or in rivalry of those departments which positive scientific method has already distinguished and established. No such absurdity as this can for a moment be thought of. The parallelism for which I contend is a parallelism between the analysis of consciousness taken simply as a knowledge or knowing, whatever the things known may be, and the analysis of certain existents or things known, as they are assumed to exist by science, from the most highly abstract existents, Space, Time, Number, to the most specialised existents in organic matter.

The analysis of consciousness taken simply as a knowing must plainly follow quite a different method, and fall into quite different departments, from the analysis of the existents or things known which are the object-matter of science, all of which, even the most abstract of all, Space, Time, and Number, are still particular existents, particular objects of consciousness, not possessing the universality of consciousness itself taken in its entirety, in which all particular knowledges are included, whatever they may be, and whensoever they may arise. The subdivisions or departments into which philosophy will fall must therefore be determined by the features which the content of consciousness presents, when taken simply as a content of consciousness without assuming any particular existent or existents as its object known. Consequently, we can only regard philosophy as a single analytical method, directed upon a single though complex object, namely, the whole content of consciousness proceeding, indeed, parallel to the positive sciences, mathematical and physical, and giving the subjective aspect of the same phenomena which the sciences present in their objective aspect, but at the same time not broken up into groups corresponding to those in which the sciences severally present the phenomena which they study, in accordance with scientific method.

IV.

But while insisting on the parallelism of philosophy one and indivisible to the whole series of the positive sciences, it is also important to keep in mind the close and special analogy which in its entirety it presents to one member, and that the fundamental member of the series, I mean pure or abstract mathematic. The consideration of this analogy will bring us back once more to our original starting point, the circumstance requisite to institute any generally applicable time-measurement, and will enable us to derive from it a striking confirmation of a philosophical conception of cardinal importance,—I mean that of Real Condition.

Pure mathematic and philosophy resemble each other, and differ from the physical sciences, in this, that they both deal analytically with phenomena which, compared to the world of common-sense objects, are abstractions. Philosophy deals with the whole content of consciousness, abstracting from the circumstance that it depends upon and belongs to individual Subjects, and taking it solely as a knowing. Pure mathematic deals with the relations of space, time, and number, abstracting from the concrete world of objects in which those relations are originally (in point of historical order) presented to experience. And of these abstract relations, those of space and time are (each in its kind) commensurate in extent with consciousness itself, being ideal divisions of them which arise in experience, in the first instance, from qualitative differences in the feelings or sensations which they contain; while numerical relations arise in the first instance from acts of attention directed upon these differences as they occur in the time-stream of consciousness, acts which we call acts of counting or numeration.

Pure mathematic is thus not only abstract but also ideal; its distinctions and its constructions go far beyond anything that can possibly be perceived either by sense or by any definite imagination which represents sensation. As instances of such abstract and ideal constructions may be named Newton's conception of absolute time, as something which "flows equably," and the modern geometrical conception of three kinds of figured space, distinguished by a difference of curvature which is either positive, zero, or negative. At the same time it is analytical of, by introducing divisions into, the abstractions, space and time, which are the formal element in all actual consciousness or experience. Philosophy analyses all consciousness; pure mathematic analyses space and time, its formal elements. Thus both kinds of thought deal with abstractions, subject to no other control than what is derived from the abstractions themselves.

But the ideal freedom enjoyed by pure mathematic in consequence of the doubly abstract character of its object-matter does not extend to physical science. On crossing, so to speak, the boundary between pure mathematic and mechanic, we find ourselves in the presence of Matter, that is, of physical substances and their motions, which is the very circumstance which we found above was requisite to enable the adoption of any generally applicable unit of measurement, whether of things physical or of abstract space and time. We find ourselves in the presence of a wholly new and unexplained fact attaching to, or more properly seated in, matter, namely, Force; that is to say, the action and re-action of physical substances, and their parts, one on another, in a great variety of modes. We also find that all these modes of physical action are regular, or capable of reduction to regularity, or are subject, as we express it, to uniform laws, a circumstance which we discover only by measuring physical masses and motions, the means for doing which they themselves supply in the way we have already seen. The ideas of equality and units of measurement are or may conceivably be found in pure mathematic, but both the means of measurement and the practical necessity for measuring alike come from the facts of physical Nature, in the midst of which we find ourselves. Physical Nature is the only source, so far as our positive knowledge goes, from which Compulsion springs.

Now this vital point of demarcation in the phenomena, as they are studied and exhibited in the series of the positive sciences, the point at which compulsion is introduced into the field of scientific thought, in the shape of physical matter and force, is represented in philosophy by the point at which our analysis of the content of consciousness yields a result, which shows out of what perceptions the conception of a real physical body is composed, and how it involves the further conception of such bodies as giving rise to perceptions, seated in our own body, among which are those perceptions which in combination compose our conceptions of the bodies themselves. This experience gives us the first and simplest notion of what, when we have analysed it, we afterwards call the Order of Real Conditioning. A real condition is anything upon which the existence or the genesis of anything else depends, and without which it would not arise or continue to exist. I speak, be it observed, of genesis or existence, not of nature or whatness. Real conditions do not account for the nature or whatness of their conditionates, but only for their occurrence; an universal law, to which those cases where the nature of an object depends on the combination of separable constituents are only an apparent exception. The term *real condition* purports to contain so much of the crude conception of Cause as is really warranted by analysis, excluding

that which has been incorporated in it without that warrant. The question whether immaterial substances, or any form of consciousness itself, such for instance as volition or thought, are real conditions, is the fundamental question of psychology.

Psychology, which is the last and most complex of the positive sciences, deals with the genesis, and laws of genesis, of states and trains of consciousness in individual Subjects. In so doing it takes or apprehends consciousness itself as an existent of a particular kind, and not as a knowing or knowledge. This circumstance distinguishes it markedly from philosophy. True it was only physiological psychology which I spoke of above as the last in the series of the physical sciences. But whatever hypothesis we adopt as to the nature of the agent which is the proximate agent, or Subject, of consciousness, whether it be material or non-material, and whether in consequence we rank psychology as the last of the physical series, or place it in a category entirely by itself,—this makes no difference in respect of its relation to philosophy. Whatever hypothesis we adopt as to the nature of the agent, it still continues true, that psychology treats of the laws of genesis, or real conditioning, of consciousness in individual Subjects, and therefore apprehends consciousness as an existent and not as a knowing; precisely in the same way as pure mathematic apprehends the abstract relations of space, time, and number, or as physical science apprehends physical masses and forces.

But it is not the place here to enter at length on the large and much debated question of the relations which subsist between philosophy and psychology, a debate prolonged mainly by the stubbornness with which the common-sense conception of Cause obtrudes itself upon philosophy as an ultimate or unanalysable conception. Suffice it to say here, that whatever hypothesis may be adopted as to the nature of the Subject or agent of consciousness, the demarcation between psychology and philosophy must in any case be given by that distinction, which we have found to be the vitally operative one in the case of the mathematical and physical sciences, the distinction which falls (within consciousness itself) between consciousness taken as a knowing and consciousness taken as an existent. And the circumstance which renders this philosophical distinction operative for this purpose is, that science is in its nature a knowing, and therefore is *in pari materia* with philosophy as a mode of consciousness, and consequently subject to the characteristic distinctions which are inseparably inherent in consciousness as such.

In conclusion and retrospect I will remark, as one outcome, and that not the least important, of the foregoing reasoning, that two philosophical distinctions taken together, the one just stated between

consciousness as an existent and as a knowing, and the one dwelt on previously between the orders of history and of analysis, seem to me to stand forth plainly as offering the only key to the intricacies of the present subject.

Short Summary of Results of foregoing Paper on Time-Measurement in its bearing on Philosophy.

There is a certain circumstance attending the initial determination of an unit of time-measurement, which marks the boundary between physical science and philosophy, both being considered as analytical modes of knowledge. The circumstance intended is, that equal times successive to one another cannot in the first instance be known as equal, unless they are taken in the concrete, as durations of motions in physical substances. This fact makes it evident, that the thought-machinery by which science moves begins with the assumption of physical bodies as ultimate data, whereas philosophy, which is the analysis of knowledge as such, has both these data and physical science itself among its *analysanda*. The same is true *mutatis mutandis* of the relation between philosophy and pure mathematic, which deals with the abstract relations of space, time, and number, relations which are abstracted from concrete experience, and the ascertainment of which, so far as it involves measurement, is dependent on the comparison of physical changes. Perception of the world of concrete physical objects is the first thing historically, but not analytically, in all branches of knowledge. Analytically philosophy searches farther into the elements of experience than any branch of science, not excepting pure mathematic. The philosophical distinctions (1) between history and analysis of knowledge, (2) between consciousness apprehended as an existent and consciousness apprehended as a knowing, together furnish the only key to the relations between philosophy and science.

JOHN OF SALISBURY.

By CLEMENT C. J. WEBB, M.A.

THE last time that I had the honour of reading a paper before the Aristotelian Society I took as my subject the principal work of John Scotus Erigena. I am to discuss to-night a writer who, in many respects, presents a strong contrast to the great mystic of the ninth century. We have now to do, not with a lonely metaphysician, living a life of philosophical speculation, aloof from the controversies of the

day, and on that account exposing himself to the suspicion of heresy at the court of Rome; but with a learned humanist of unblemished orthodoxy, for whom philosophy is a refuge, always desired but not always attainable, from the distractions of an active political and diplomatic life, and a devoted partisan of the hierarchical interest in its struggle with the civil power. So great is the difference between the two men that it seems only fitting that John of Salisbury should have been the statesman who negotiated the papal bull empowering an English king to proceed to the conquest of that Ireland, whose chief intellectual glory in the days of her independence had been John the Scot.

It will be convenient to introduce an account of John of Salisbury's philosophy by a short summary of his career. Born at Salisbury, most probably about 1120 A.D.,* he left England as a boy during the anarchic period of Stephen's reign, to study in the schools of France.† There he heard successively the principal teachers of the day, including the illustrious Abelard and Gilbert de la Porrée—whose work on the Six Principles, *i.e.*, the last six categories, was reckoned, till the revival of learning, worthy of a place in the *Organon* of Aristotle—both of them at Paris, as well as William de Conches and Richard l'Évêque, of the renowned school which then flourished at Chartres, and of which I shall have occasion to speak again. After 12 years spent in learning and teaching he was present in 1148 at the Council of Rheims, where St. Bernard attempted to silence Gilbert, as eight years before he had silenced Abelard. Here John was introduced to the all-powerful Abbot of Clairvaux, and by him was recommended‡ to the service of Theobald, Archbishop of Canterbury, whom he had already met at the same council. He soon returned to England and spent the next thirteen years of his life, down to the death of his patron, as a member of his household. This meant for him the exchange of a student's life for that of a public servant. For not only was the position of the Archbishop of Canterbury at that period always one of great political and international importance, but after Stephen's death in 1154 the frequent absences of his successor, Henry II, in his extensive continental dominions, left the primate, often for a long time together, the principal person in the realm. John soon became secretary to Theobald, and many of his extant letters are written in the archbishop's name. But his activity was not limited to Canterbury. He was frequently employed

* The date of his birth is often given as A.D. 1110. But see Poole's *Illustrations of Mediæval Thought*, p. 201.

† *Metalogicus*, ii, 10.

‡ S. Bernardi, *Ep.* 361.

in missions to the court of Rome: ten times, he tells us,* he crossed the Alps on his way thither. He was the intimate friend of Nicholas Breakspear, who ascended the papal throne in 1154 as Hadrian IV (being the only Englishman that has ever filled the chair of St. Peter), and obtained from that pontiff the bull authorising Henry to undertake the conquest of Ireland, the bull being accompanied, as John himself relates, by an emerald ring in token of the king's investiture by the pope with the lordship of the island.† But although one might have supposed that political business left him during this period but little time for study—and indeed he is not sparing of complaints on this very point‡—he availed himself of his visits to Italy to talk with persons acquainted with Greek, and probably also to promote a new translation of all the logical works of Aristotle; while in 1159 he produced his two great works, the *Policraticus*, or *Statesman's Handbook*, and the *Metalogicon*, or *Plea for the Study of Logic*, both addressed to Henry II's favourite and chancellor, Thomas Becket, archdeacon of Canterbury. On the death of Theobald and elevation of Thomas to the metropolitan throne, John continued at his post in the archiepiscopal household, and became secretary to Thomas, as he had been to his predecessor. He adopted with zeal and conviction the side of his master in the contest with Henry, though, as we see from his correspondence, he did not scruple to speak his mind very freely to Thomas on the unreasonable violence and obstinacy by which the archbishop often discredited his cause. Thus in 1167 we find him setting aside one after the other, on account of the intemperance of their language, the drafts of a letter which Becket had prepared to send to a papal legate whom he believed to be adverse to his views.§ Very early in the quarrel between Becket and the king, John of Salisbury either was banished or thought it safer to quit England, and accordingly, in 1163, he crossed the channel and took refuge in the dominions of the French king. Thither the archbishop followed him in the course of the next year; from that time onwards he shared all the varying fortunes of his exiled patron, and in 1170, after the hollow reconciliation with Henry, returned in his company to England, and was with him on the occasion of his murder. After that event he took part in promoting the canonization of the archbishop, which was pronounced by the pope in 1173; and in 1176 he became “by divine permission and the merits of St. Thomas” bishop of Chartres, a place where he had received an important part of his early education. He is mentioned as present, after this date, on some occasions of historic

* *Metal.*, iii, prol.

† *Ib.*, iv, 42.

‡ e.g., *Metal.*, iii, prol.

§ *Epp.* 220, 232. See Robertson, *Becket*, p. 203.

interest; for instance, at the third Lateran council, which confined the privilege of electing popes to the college of cardinals. He died in 1180, and was buried at Chartres. To the cathedral church of that city he bequeathed his library, a catalogue of which is extant in his will.

This brief recital of the chief events of John's life will prepare us to expect from him a philosophy such as his actually was, the philosophy of one who was not a philosopher only but also a man of affairs. Of all the classical names by which schools of thought are designated, such an one will prefer to be called by that of Academic; and this is in fact the title affected by John of Salisbury.* He professes a moderate scepticism which, as he puts it, "doubts of things dubitable to the wise man"; of these he gives a curious list, inclusive not only of such permanent metaphysical problems as the relations of fate and free will, the nature of the soul, and infinite progression or division, but also of physical problems such as that of the sources of the Nile;† while he will not go to the length of those who, by denying that we have certainty on any points, reduce man below the level of the more sagacious of the brute creation.‡ For this Academic position he claims the authority of Cicero,§ his boundless admiration for whom is eminently characteristic of his intellectual temperament. In Cicero the cultured statesman, the interest of whose leisure lay in an intelligent survey of the various speculations of great thinkers on the world and on life, John of Salisbury recognised a kindred spirit. Like Cicero, he is an eclectic, not attached to any one system, but picking and choosing everywhere what pleases him best: like Cicero again he is—and here, according to the observation of Professor Schaarschmidt,|| the author of an admirable monograph upon his life and works, he is unique in the middle ages—a historian of philosophy.

But John of Salisbury and his Academic position remind us not only of the Roman philosophy of the past, but of the English philosophy of the future. It is often said in praise of English philosophy that it is not professional or professorial, but is closely bound up with the various life of the nation, reflecting thus the traditional conception of an English university education as primarily designed to train men not for the student's desk or the teacher's chair, but for the general "service of God in Church and State." So far as this is true of English philosophy, its leading traits are already visible in the writings of John. We have seen that,

* See *Pol.*, vii, prol., 1-3, 9; *Metal.*, i, prol., ii, 14, 20, iv, 7, 31.

† *Pol.*, vii, 2.

‡ *Ib.*

§ *Ib.*, vii, 1.

|| *Johannes Saresberiensis*, p. 335.

anticipating Hume, he defends an Academical philosophy:* we may also observe in him a singular resemblance to the man whom England herself has long regarded as her greatest philosopher and who certainly illustrates most conspicuously many both of the merits and defects of our national type of intellect, Francis Bacon. Again and again, in reading John of Salisbury, one is reminded of Bacon, and were anyone to attempt to construct from the essays of Bacon one long treatise, as some scholars tell us the Homeric epics were constructed from a multitude of independent ballads, I suspect that the result would closely resemble the *Policraticus* of John of Salisbury. There is indeed a side of Bacon to which John presents no parallel. All that makes Bacon more of a philosopher than of a humanist, that zeal for natural science and for his own method of discovery which leads him with deliberate intent to "discourse scornfully of the philosophy of the Grecians," is absent from the elder writer. It is of Bacon the essayist and encyclopedist, the thoughtful student of history and politics, the creator of unforgettable phrases and metaphors, that John reminds us. I think it likely that Bacon knew the *Policraticus*—in which, by the way, occurs something very like the famous saying that the man who is out of the right way gets farther from it the faster he runs†—for though he does not, that I know of, mention it in any work of his that we possess, yet I am the owner of a copy which belonged to Toby Mathew, Bishop of Durham, the father of his lifelong friend of the same name to whom he communicated the first drafts of many of his works. There are, however, more exact parallels to passages in Bacon to be found in the companion treatise *Metalogicus*.‡ This was printed in 1610, and it is not at all improbable that Bacon knew it and may have derived from it suggestions for the treatises written subsequently to that date. But in any case, whether there were indebtedness to John on Bacon's part or no, the resemblance of the two men is worth observing. Both were thorough Englishmen, and the national character revealed itself in their writings in very similar ways.

* See Hume's Essays; *Enquiry*, essay xii.

† *Pol.*, vii, 13; cf. Bacon, *Novum Organum*, I, § 6. Compare also Bacon's favourite comparison of Aristotle to Antichrist as "coming in his own name," and his parallel between the spiritual ambition of the philosopher and the secular ambition of his pupil Alexander, with their anticipation in John, the contrast of Alexander and Aristotle, whom men falsely called gods, "in that in all things they sought their own glory," with God's true Son Jesus Christ, who everywhere sought his Father's glory, not his own. *Pol.*, viii, 5, Bacon, *de Augmentis*, iii, 4.

‡ e.g., *Metal.*, ii, 2, cf. Bacon, *N.O.*, I, § 67; *Metal.*, ii, 7, cf. *N.O.*, I, 63, *de Augm.*, v, 2, etc.; *Metal.*, ii, 7, *ad fin.*, cf. *Essay on Truth*; *Metal.*, ii, 20, cf. *De princ. atque orig.*; *Metal.*, ii, 20, cf. *N.O.*, I, § 23, § 124.

The enthusiasm for culture and philosophy which is the most striking characteristic of John's mind had doubtless received powerful encouragement from his studies in the school of Chartres and still earlier at Paris under Abelard.* Chartres was pre-eminently among the centres of learning in that age the school of humane letters. The educational methods of its first eminent teacher, the Platonist, Bernard Sylvester (who had apparently retired from the active work of the school when John attended it), are vividly described to us in the *Metalogicus*: and his successors whom John himself heard, followed, he tells us, in the same lines.† What concerns us at present under this head is the fact that Bernard, while by no means neglecting the elements of grammatical science, led his pupils to the direct study of the great writers, discouraging the waste on anything inferior of the time which might have been spent on these. It is in this sense of proportion, which values the minutiae of learning highly, but at the same time not as ends but as the indispensable means to the comprehension of a great literature able to impart a broad and manifold culture, that John appears as the worthy disciple of the "old man of Chartres," *exundantissimus modernis temporibus fons litterarum in Gallia*. The knowledge and love of classical letters which John carried with him through life will be best illustrated by the following list of Latin authors,‡ some of whose works he undoubtedly knew in their original form—of Greek, as we shall see hereafter, he knew nothing to speak of. Among prose writers he had read in Cicero, Sallust, Hyginus, Livy, Valerius Maximus, Seneca, Petronius, Quintilian, Frontinus, the two Plinys, Suetonius, Apuleius, Florus, Justin, Aulus Gellius, Nonius, Donatus, Eutropius, Vegetius Renatus, Servius, Macrobius, Marcianus Capella, Priscian, and the Corpus Juris: among poets, in Terence, Horace, Virgil, Ovid, Lucan, Statius, Persius, Martial, Juvenal, Claudian, and Sidonius Apollinaris: and there are others who were probably known to him only by quotations or references in later authors. Of all these, his favourites are Cicero, Virgil, Horace (whom he calls pre-eminently *Ethicus*, the moralist) Juvenal and Persius (alike called *Satyricus*) and Terence "who in his *Eunuchus* gave us a picture of well-nigh all human life."§

The wide liberty of reading which he practised, John was fully prepared to defend. All writings, he says, may be read, and the good in them extracted and used; and this is one meaning of the donation of all herbs as food to our first parents and of all flesh to the sons

* See Schaarschmidt, p. 22; Poole, pp. 206, 207.

† *Metal.*, i, 24, cf. ii, 10.

‡ See Schaarschmidt, ii, 3.

§ *Pol.*, viii, prol.

of Noah, that is, to man in a state of innocence and to man restored by grace after punishment.* Thrice does he avail himself of the ambiguity of the word *scriptura* to quote from St. Jerome the phrase, "Love the knowledge of Scriptures and thou shalt not love the sins of the flesh," in reference to the elevating influence of literary studies in general.† But this humanism of our author was tempered by a really critical spirit. Thus, while Bernard of Chartres, like many humanists in the 16th century, delighted to attempt a reconciliation of the two great masters of ancient thought, Plato and Aristotle, John, after recording an instance of this syncretistic interpretation, adds, "but I think they [Bernard and his followers] are too late and have vainly laboured to reconcile those when dead, who, as long as they lived and might have been reconciled, were of different opinions."‡ And just as his critical spirit keeps his humanism within bounds, so does his literary taste save him in the character of philosopher from losing himself in the arid maze of the merely technical discussions wherein many students of his day occupied themselves. He has no mercy for the mere grammar-mongers, or logic-choppers, who spend their life in verbal quibblings which are, at the best, useful only as schoolboy exercises.§ He complains of those who read all literature as he himself admits it is right to read the inspired books, that is, with an anxious attention to every jot or tittle, instead of understanding each sentence in the light of the context and general drift.|| He is especially severe on those whose logical studies begin and end with the *Isagoge* of Porphyry, forgetting the merely introductory character of that book which its very title proclaims.¶ He perceived the preposterousness of raising the deepest philosophical questions on occasion of the passing observations of this elementary treatise, instead of waiting for the guidance of Aristotle's fuller treatment of them in the more advanced works of the *Organon*. "They read," he says, "the end in the title," regardless of the true order of instruction; they find in Porphyry everything—Topics, Analytics and Elenchi.** The criticism was by no means unneeded. Hauréau has observed that the great question of universals was first raised for the mediæval mind by a sentence of Porphyry's *Isagoge*. We may add that the earliest scholastic work in regular form which remains to us, the *De Rationali et Ratione uti* of Gerbert, afterwards Pope Sylvester II, is a discussion of what is at bottom a really deep problem of philosophical logic in the form of a commentary on another phrase in the same book. But for

* *Pol.*, vii, 10.

† *Metal.*, ii, 17.

¶ *Metal.*, ii, 16, iii, 1.

† *Pol.*, vii, 10; *Metal.*, i, 24, *Ep.* 143.

§ *Pol.*, vii, 12.

** *Id.*, ii, 19.

|| *Id.*

John of Salisbury, Porphyry's work is a mere preface. To linger over him is to refuse to put away childish things for the mature studies which befit intellectual manhood. The incidental expressions of Porphyry are often not strictly correct; thus, in speaking of the genus of man and of animal, he makes more of the body than of the soul; but being used only as illustrations they do well enough for the purpose in hand. One should read on: authors and books often interpret one another.*

There is a humorous description in the autobiographical chapter of the *Metalogicus*, of his return after ten years' absence spent chiefly in literary and theological studies to his first school on Mount St. Geneviève, by Paris, where he had heard Abelard, Alberic, and Robert, of Melun, in logic. "So it seemed pleasant to me to revisit my old comrades whom I had left and whom the study of Dialectic still kept upon the Mount, to confer with them on our old difficulties that we might, by comparing notes, test the progress we had respectively made. I found them the same as they had been and in the same place, they seemed neither to have succeeded in solving the old questions, nor to have added one smallest jot thereto. The same aims as had inspired them before inspired them still. In one thing alone had they gone forward, they had unlearned moderation, they knew not modesty; so that, indeed, one might well despair of their amendment. Thus I learned what may easily be inferred, that as Dialectic is an aid to other sciences, so if it be left alone it lies bloodless and barren, nor doth it quicken the womb of the soul to bear the true fruit of philosophy, unless the soul conceive from another."† Here we may note a remarkable anticipation of Baconian language on the sterility of merely abstract studies, although the application is no doubt different. What John insists upon is not that logic—"dialectic" as he generally calls it—is useless, but that it is so when isolated from other sciences, to which it should be a means and a guide. He is careful to explain that his contempt for mere logic is not a contempt for logic itself. His *Metalogicus* is a plea for the thorough study of logic in answer to a bitter opponent of his own, whose personality, out of charity and kindness for an old acquaintance, he veils under the name of Cornificius—an obscure rival of Virgil's, mentioned in Donatus' life of that poet—who with his party would seem to have occupied in the intellectual world of the time a position not unlike that attributed by Plato to certain of the sophists.‡ Cornificianism, as described by John, combined real ignorance with great pretentiousness, and despised accurate study of the elements, yet never proceeded to a real grasp of that for which

* *Metal.*, iii, 1.

† *Ib.*, ii, 10.

‡ *Ib.*, i.

such study is the only preparation. The school from which Cornificius proceeded had busied itself with the most trifling questions, and this was called neglecting the letter to find the spirit : in the statement that Hylas was from Hercules it found the inner meaning that a valid argument comes from a bold and powerful method of arguing ; it discussed whether a pig going to market was driven by a man or by a rope, or whether one bought a hood when one bought a whole cloak.* By a natural reaction from such follies, the Cornificians assailed all logical, grammatical, and rhetorical education as superfluous. If a man has a natural gift for eloquence, rhetorical teaching is superfluous ; if he has none, it is useless.† This attack is really, as John points out, an attack on all learning and all philosophy. Everything is left to nature ; art is cried down.‡

But John prefers to regard intellect as that which "proceeds from nature, is added to by practice, is restrained by overmuch toil, is sharpened by moderate exercise." The mental temperament best suited to philosophical training is neither the impatient and high-flying "advolans," nor the unambitious grovelling "infirmum," but the "mediocre"; and here again we seem to hear a spiritual kinsman of the father of inductive philosophy.§ The true scholar must slowly and painfully ascend through *trivium* and *quadrivium* to the higher problems of physics and of ethics.|| He must be a *dialectician*, but must remember that the universal range of dialectic does not make it superior, but auxiliary, to the other sciences. From them it derives its subject-matter, in the form of *questiones* or problems : and then in its turn it directs us in the discussion of these, and supplies a collective method applicable in all departments of knowledge where we seek probability, though every science has its own proper constitutive method as well.¶ John is not ignorant of Aristotle's distinction of "apodeictic" or demonstrative logic from dialectic, but holds that the realm of necessary truth is beyond his range. Demonstration, he observes, belongs chiefly to the science of geometry, which is little studied except in Spain and Africa, where, as also in Egypt and among some of the Arabians, it is practised still in connection with astronomical investigations. At any rate, no one should aspire to this higher demonstrative science who has not made himself master of dialectic or probable science.**

In everything John takes the same high and generous view of intellectual culture. He has ungrudging admiration for all the really distinguished teachers of his day.†† His acquaintance with and obligations to the great heresy hunter and enemy of free thought,

* *Metal.*, i, 3.

† *Ib.*, i, 6.

‡ *Ib.*, i, 10.

§ *Ib.*, i, 11.

|| *Ib.*, i, 12.

¶ *Ib.*, ii, 12, 13.

** *Ib.*, iv, 6.

†† See *Metal.*, i, 5.

Bernard of Clairvaux, do not hinder him from paying all due respect to Abelard and to Gilbert. His enthusiasm for the ancients does not betray him into any pedantic and unreasonable neglect of his contemporaries. He freely used, he says, in his controversies the works of men he knew, not despising modern books because they are modern, but using them "the more familiarly that I knew them more certainly to be the gifts of faithful friends." It seems to him a foolish and ungrateful thing to accept an opinion on the authority of Coriscus or Brisso or Melissus, mere examples in Aristotle (though, of course, this is true only of the first-named) and otherwise unknown, and reject it because it comes from Gilbert or Abelard or Adam*—that is, probably, Adam du Petit Pont, an eminent Aristotelian whom John knew in Paris, afterwards Bishop of St. Asaph in Wales. None of his contemporaries, he thinks, has advanced opinions so absurd as some of the ancient philosophers have done. And one should gladly confess one's indebtedness to others: those who object thereto should remember that they may come themselves to be quoted in like manner as good authors, when contemporary jealousy has passed away.† He notes improvements and additions in logic due to modern writers, as, for instance, Abelard's in the doctrine of modals and hypotheticals.‡ He quotes a remark he had heard Abelard make, that a man might now compose a book nowise inferior to Aristotle's in truth or elegance (this is said *à propos* of the *De Interpretatione*), yet it would not have the same authority. We reap what our fathers have sown: we do easily what they found out how to do with much time and pains: our age knows more than theirs, not by its own exertions but through the labours of those who have gone before. Bernard of Chartres, he tells us, compared us moderns to dwarfs, standing on the shoulders of giants and seeing more and more distant things than they to whose great stature we owe our exalted position. So no one is contented with Aristotle's *De Interpretatione*, but all add to it from various sources. This is made the more necessary by changes in the meaning of technical words, which are inevitable and which we must not fail to take into account. "Usage is mightier than Aristotle" in altering and abolishing words, but human will cannot affect the truth of things. Let us keep old words if possible; if not we must keep the meaning and let the words go. Who could treat the "battle of the books" or the "interpretation of thought in words" more judiciously than John does here?§

This large-mindedness, indeed, may be fairly said to be not unconnected with his defect as a speculative thinker. The imperious craving for consistency which makes a man either a heretic or the

* *Metal.*, iii, prol.

† *Ib.*

‡ *Ib.*, iii, 6.

§ *Ib.*, iii, 4.

uncompromising foe of all that may make for heresy, was alien to his mind. Philosophy interested him mainly as an instrument of culture. He would learn from every man and from every book whatever they might have to teach him, content to accept whatever accorded with, reject whatever disagreed with, the religious creed which he held with whole-hearted devotion to be the highest truth attainable by men. That is the principle of his criticism of ancient philosophies in his poem called *Entheticus de dogmatibus philosophorum*. From such a man we shall not look for original speculation, but rather for that intelligent and sympathetic account of other men's views which, as a matter of fact, constitutes perhaps the main interest to us of his philosophical writings. Thus he gives us a most valuable chapter in the *Metalogicus* on the different opinions entertained by the various schools of his day on the great question of Universals, a question which is always, in one form or another, one of the principal problems of philosophy, and which at that time, when thought was dominated by logic—no remains of Greek philosophic literature being extant (the *Timæus* of Plato in the translation of Chalcidius alone excepted), which dealt with any other subject—presented itself as a logical question. John enumerates nine views on this topic—three nominalist, six more or less realist.* For himself he holds to what he conceives to be the teaching of Aristotle, “genera et species non esse sed intelligi tantum.” This is not, however, mere ordinary conceptualism: for, he thinks, to ask “what universals are” is a vicious way of putting the question, since they are not in the category of substance at all, but rather in that of quality. Thus he will not say they “are” *voces* or *sermones* or “*intellectus*,” but merely that they “are conceived.” They do not exist except in the particulars: apart from these they are but phantoms of our minds, the relics of the real similarity or “conformities” of things left in the mirror of the soul. But they are not thoughts of nothing: the understanding in taking them for objects is not *cassus*: the abstraction by which they are constituted is *fidelis et quasi quædam officina omnium artium*. Things have only one way of being; of being understood or interpreted many ways. Their manifold similarities are the archetypes of our conceptions of genera and species into which they are grouped; and accordingly God is described in Scripture as making things “after their kind,” but never as making universals over and above particulars. The mind for convenience’ sake introduces universals as a compendious way of stating a number of facts: it then reflects its own “agitation” back into the world: regarding one thing as *e.g.*, Plato, man, animal, which

* *Metal.*, ii, 20.

is in actual fact one only thing, of which the mind seems to make three, because its own investigation of the nature of the thing has three stages. Such appears to me to be a tolerably adequate representation of John's views on the question of his day. He does not omit to add, after his manner, that we may use the substantive verb loosely of universals without blame, so we do not make out of our usage a theory of their independent existence; nor to put in a proviso that if he here takes a line with Aristotle against Plato, despite the greatness of the latter philosopher and the support given him by St. Augustine, it is in matters of peripatetic or dialectic—(for in the 12th century *peripateticus* and *dialecticus* were used as synonyms: Abelard is regularly called *Peripateticus Palatinus*)—where it is permissible to follow the head of the peripatetic school, whose doctrine moreover fits in best with the conclusions of logical science and occupies the *via media* between Platonism and nominalism.

The true hope for the progress of logical science seemed to John—and here he was no doubt right—to lie in the further study of Aristotle. Accordingly he is the first western writer of the Middle Ages who shows knowledge of the whole *Organon*, a new translation of which he probably had some part in causing to be made. Abelard had only the *Categories* and *De Interpretatione* in the translation of Boethius: of the other works only the names were known to him. John of Salisbury gives us a complete abstract of the *Categories*, *De Interpretatione*, *Topics*, *Analytics*, and *Sophistici Elenchi* in turn. The *Categories* he calls the *elementarius*, the *De Interpretatione* the *syllabicus*, the *Topics* the *dictionalis*.* He observes, by the way, that the predicables and the question of genera and species are far better treated in *Top.* i and iv respectively than in the *Isagoge* of Porphyry.† The *Topics*, as dealing with the sphere of probability, appear to him a specially useful work. Yet *Categories*, *De Interpretatione*, and *Topics* alike are all only introductory to the *Analytics*.‡ Here he complains much of the difficulty of the language; in spite of which, however, the books are the best account of their subject.§ He notes the incompleteness of Aristotle's doctrine of modals, which required supplementing by Theophrastus and Eudemus,|| and again the disappointing nature of the chapter on physiognomy with which the *Prior Analytics* end. Nowhere had John ever met a man to whom it had given perfection in the knowledge of natural dispositions as it seemed to promise.¶ But if the *Prior Analytics* are difficult, still more so are the *Posterior*.** This is partly due to the subject, which is demonstrative science, now little practised, although it was by his

* *Metal.*, iii, 4, 6, 10.

§ *Ib.*, iv, 2.

|| *Ib.*, iv, 4.

† *Ib.*, iii, 5, 7.

¶ *Ib.*, iv, 5.

‡ *Ib.*, iii, 10.

** *Ib.*, iv, 6.

eminence in this that Aristotle earned the title of Philosopher *par excellence*.* The perplexity which John candidly confesses he feels in making out the meaning of these treatises is evidenced also by the fact that in his account of them he keeps less closely to his text and ekes out his author by the help of other writers, Plato, Cicero, Seneca, Cassiodorus, Hugh of St. Victor.† He remarks on the omission of any treatment of hypothetical reasoning, but observes that the germ of this part of logic is to be found where Boethius found it, in the Aristotelian doctrine of modals. He hazards the suggestion that Aristotle's omission of this subject was not unintentional; for the work of those logicians who had here supplied an account of it seems, says John, more difficult than useful: and moreover, had Aristotle written of it in his own style, it would most likely have been so hard that no one but the Sibyl could possibly have understood it.‡ The book on *Sophistic Elenchi*, which is epitomised last, is praised as useful to young men in making them less liable to be tripped up in argument.§

But Logic was not the only province of Philosophy with which John deals, nor is it that on which he left his deepest mark. Metaphysic and physic indeed he cannot be said to touch. He sees how great a preparation must be made before such subjects can be fitly approached: and as yet the works of Aristotle dealing with these sciences were not available for the guidance of the intellect of Western Europe in its first essay to tread their paths. Interest in political philosophy, however, distinguished the 12th century, and in political philosophy John holds strong and independent views. They are expanded in the *Policraticus*, where they take the form of a commentary on a treatise ascribed by John to Plutarch, which was called the *Institutio Trajani*, and professed to have been written for the instruction of that emperor. This treatise contained an elaborate comparison of the body politic to the body natural. The priesthood is the soul, the prince the head, the senate the heart, the judges and governors of provinces the eyes, ears, and tongue, the officers and soldiers the hands, the courtiers the sides, the quæstors and registrars the digestive organs, the husbandmen the feet.||

This arrangement gives occasion to many interesting observations on the several classes enumerated, but what we are chiefly concerned with is his doctrine of the priesthood and of the prince. In his account of the latter the teaching of pseudo-Plutarch is supplemented by that of Deuteronomy. The true prince is one in whom no individual or selfish passion interferes with his perfect embodiment of

* *Metal.*, iv, 7.

§ *Ib.*, iv, 22.

† *Ib.*, iv, 10-16.

|| *Pol.*, v, 1, 2.

‡ *Ib.*, iv, 21.

the law of justice ; his will is universal, he represents that disinterestedness which is the very principle of goodness.* But if he allows himself to fall from this ideal, the ruler is no longer a prince but a tyrant, the image of the devil as the prince is the image of God.† Such a one, according to John, it is lawful, nay right, to slay.‡ This extreme position, afterwards I believe not uncommon in the mediæval schools, but first announced by John, is closely connected with his high churchmanship. The struggle of Pope Gregory VII with the Emperor Henry IV in the 11th century had its parallel on the local stage of English politics in the shortly subsequent contest of Anselm with the Red King and his brother Henry I. The same quarrel was fought out in the next century between Alexander III and Frederick Barbarossa, between Thomas Becket and Henry II. In this case the great power and wealth of an English king, who was also ruler of Normandy, Anjou, and Aquitaine, made this dispute with the primate of Canterbury scarcely second in general importance to that which the pope was waging with the emperor and an anti-pope recognised by the emperor alone among the great princes of Christendom. John of Salisbury, as we have seen, espoused the cause of the hierarchy. This did not prevent him from uncompromising censure of the church as it was. None could speak more severely than he does of the venality of the papal court, of the reckless ambition of prelates, of the corruption of the monastic orders. Where no one questions the authority of an institution, such criticism of those who actually represent it has not the bearing which it would have where the institution's claims, not in detail but in essence, are matters of dispute, as happened with the Catholic church at the period of the Reformation. In "ages of faith" the stoutest churchmen can be, and naturally are, the loudest in denouncing evils which bring discredit and weakness on the church. John thus performed an obvious duty in his plain speaking about ecclesiastical abuses, but his language makes him an important witness against the fanciful idealization of the mediæval church which was once the fashion in certain circles amongst us.

It was natural for a man of John's temperament to be of the ecclesiastical party, since it was natural for humanism to ally itself with the catholic ideals of the Latin church rather than with those which were merely national. Not that John was unpatriotic. His patriotism—which it is worth while to observe is English patriotism, showing no feeling of the distinctness of the Saxon and Norman elements in the nation—often finds vigorous expression in his writings.§ It sometimes assumes, as patriotism is apt to assume,

* *Pol.*, iv, 2, 5 ; viii, 17.

† *Ib.*, viii, 20.

‡ *Ib.*, viii, 17.

§ *Freeman, Contemp. Rev.*

quaint forms: as when adding to his list of tyrants who have come to violent ends the name of Severus, the founder, as he believes, of his own birthplace, Salisbury, he remarks that that emperor's death at York was not due to poison, for Britain ever abhorred poisoning and knows not how to fight against its princes, but rather how to draw for them unconquered swords; so that his punishment for persecuting the Christians must have been reserved till after his death.* Again, he contrasts the state of the English military power in his day after the decay of discipline under Stephen, unable to check the Welsh raids upon the marches, with the ancient glory of the British arms in the days when Brennus proceeded from our island to the sack of Rome, and required to repulse him no mortal man but the god of Delphi.† Yet in expounding his theory of civil government, feudalism simply disappears from his sight: the institutions of the universal Roman empire fill his mind to the exclusion of those which already existed in his own country. Of the civil law he speaks with characteristic reverence; the act of Stephen in confiscating the copies of the Roman code belonging to Archbishop Theobald and others, and in silencing the lectures of Vacarius thereupon is classed with the impieties of Uzziah and Antiochus Epiphanes in Jewish history.‡ In his double character as the man of universal learning and the travelled man of affairs, as the student and the diplomatist, he looks for a remedy of the confusions and barbarisms of his time to a state in which the priest, the representative of the spiritual and moral order will be above the secular authority, and keeping it in check will prevent it from degenerating into the selfish violence of tyranny; for a remedy of the vain, logical, and grammatical quibbling, and the even vainer affectation of superiority to logic and grammar which he sees around him, to a general culture, in which sound grammar and sound logic will bear up a stately structure of science, of which theology will be the roof and crown.

The way to the realization of this latter ideal lies for him through the thorough assimilation of the ancient culture contained in the literature of Greece and Rome. Thus we see well represented in him that aspect of the intellect of his period in which it seems sworn, like its own knights of Arthur's table, to a quest, the quest of the Greek literature which, like the holy grail, had vanished from the world which it had once glorified by its presence. The occasional glimpses of it vouchsafed to certain fortunate scholars, like the rare visions of the mysterious cup, did but avail to make keener the longing after its possession. It is but one sign of this that so many of the most celebrated works of the time bore Greek titles, or what were meant

* *Pol.*, viii, 19.

† *Ib.*, vi, 16, 17.

‡ *Ib.*, viii, 21.

for such. Thus we have St. Anselm's *Monologion* and *Proslogion*, Bernard of Chartres' *Megacosmus* and *Microcosmus*, William of Conches' *Dragmaticon* (i.e., *Dramaticon*), Abelard's *Hexameron* and the *Phrenophysicus* of unknown authorship mentioned by John of Salisbury as the best summary of the philosophical theories on the Soul. So our author has his *Policraticus*, his *Metalogicus*, his *Entheticus*. None of these three words are really Greek, but all of them are meant to be; the first is probably meant for the Statesman's, or more literally, the State-ruler's book; the second, he tells us himself, means a plea for Logic; the last is the name of his poems in elegiac metre, one an introduction to the *Policraticus*, while the other, "*Entheticus de dogmatibus philosophorum*," forming an epilogue to one or both of his larger works, and addressed (like the smaller *Entheticus*) to his book personified, contains a sketch of the history of philosophy, and a political invective in which the real names of the persons assailed are exchanged for others borrowed from the late pseudo-Plantine comedy *Querolus*, and other ancient sources. It has been supposed, with great probability, that John intended this name *Entheticus* or *Eutheticus*, of which, as it stands, nothing can be made, for *Nutheticus*, the Counsellor. His position as a seeker after the lost Greek culture is marked again by his interest in the new translation of Aristotle, and the eagerness with which he seems to have availed himself of the chances which presented themselves, during his Italian travels, of conversing with persons who knew Greek; just as a hundred years after his time Roger Bacon is found crying out once more for new and better translations of Aristotle, and censuring, with his accustomed strength of language, those which were current in his day. It is true that on one occasion John says that he will match his Latin Cicero with any Greek philosopher,* but this is simply a piece of the patriotic tradition of the Latins, aided by John's personal sympathy with Cicero. John is a humanist, as were the men of the renaissance: but the mediæval humanist died without having received the promises which were fulfilled to his successors, through the revelation of Greek literature to Western Christendom in the 15th and 16th centuries.

I have tried to set before you not a detailed account of John's writings, which do not present us with a complete philosophical system capable of being criticised or discussed, but rather the picture of a man "the central figure of English learning" in his time, an excellent example of the political earnestness, the unpedantic culture, the sound common sense, which Englishmen love to regard as characteristic of their nation. Of John as a politician and scholar

* *Enth.*, Q. 1215-1217; cf. *Pol.*, ii, 22.

we have spoken. His common sense, sufficiently apparent in his philosophical views, is also illustrated by his uncompromising attack on judicial astrology, and on magical pretensions in general, in the first and second books of the *Policraticus*. He has no faith in the objective truth of the stories of witchcraft which obtained credence in such high quarters as late as the 17th century. The Witches' Sabbaths, which some supposed witches assert that they have attended, are only dreams sent by evil spirits.* The one incident which John tells us of his boyhood in England is highly characteristic of his unsuperstitious temper. A certain priest, to whom he was sent to learn his Psalter, indulged in the not even now extinct practice of consulting the "magic crystal" by means of an innocent child. He attempted to use John, among others, for this purpose. "It happened that he made me, and a boy somewhat bigger than I, after some wicked preliminaries, to sit at his feet and attend to the sacrilegious business of this mirror, so that by our means there might be shown him that which he sought, either in nails smeared by some consecrated oil or chrism, or in the clean smooth body of a basin. When, then, after first uttering some names which seemed to me, by the horror I felt at them, child as I was, to be those of demons, and also making some preliminary adjurations which, thank God, I do not know, my comrade had declared that he saw some shapes, dim and cloudy indeed, I for my part turned out so blind at this business, that nothing appeared to me but the nails or basin and the rest of the things that I knew to be there before. So I was after this judged useless for this sort of practice, and was condemned, as a hinderer of these sacrilegious proceedings, not to approach to any such, and, as often as they had resolved to make these practices, I was shut out as an impediment to any divination. So gracious was the Lord to me in my tender age."* With this quotation, so illustrative of the rational piety and judicious scepticism of our author, we may for the present take our leave of him.

THE PHILOSOPHY OF MR. SHADWORTH HODGSON.

By G. F. STOUT, M.A.

"THE Principle," says Mr. Hodgson, "which I think I have established beyond the possibility of reversal is that of Reflection. Whatever other parts of the system may be found to be untenable this

* *Pol.*, ii, 17.

† *Id.*, ii, 28.

will stand." The first question, then, which confronts us in our present inquiry is: What does Mr. Hodgson mean by "Reflection"? On p. 100 of the *Philosophy of Reflection*, we find a general statement on this point which followed up in the same chapter by a more detailed analysis. The general statement is as follows: "Philosophy is distinguished from science by being an exercise of reflective as distinguished from direct consciousness. Its principle is the mode of self-consciousness and its method is prescribed by that principle; it consists in a repeated analysis of phenomena as they are *in* consciousness, as parts or states of it; and not in their character as objects outside consciousness, for consciousness to stand and look at. For objects in this latter character, as objects for consciousness to stand and look at, may be treated *also* as objects *in* consciousness; and this way of treating phenomena is therefore more general, being applicable to *all* phenomena, and not to those only which have the character of objects for consciousness to stand and look at; this more general treatment is the method of reflection."

With these statements then the Philosophy of Mr. Shadworth Hodgson stands or falls. Our first task, therefore, will be to make perfectly clear to ourselves what these statements mean. Now, it seems to me that their meaning is twofold. One part of it is clear and irrefragable: the other is in the highest degree obscure and dubious. The clear and irrefragable part is as follows: Between Philosophy and other modes of knowing there is this essential difference. In other modes of cognitions we have thoughts about things, but we do not think about our thoughts; we only think of the things. Objects are known, but the fact that they are known is disregarded; their existence alone is considered and relation of this existence to our cognitive consciousness is left out of count. We have ideas of things, but not ideas of our ideas of things. In Philosophy, on the contrary, objects are considered, not in their relation to each other in the way of causation and so forth, but in their relation to the thought which takes cognisance of them. Its method is, therefore, the method of Socrates, and it consists in the analysis of ideas. Objects are considered by it in their subjective aspect—in their relation to the consciousness which is aware of their existence or non-existence.

This is what I myself understand by the principle and method of reflection, and so far as Mr. Hodgson means this, and no more than this, I am absolutely at one with him. Throughout this paper I shall not advance a single criticism of the Hodgsonian philosophy which is not, in this sense, based on reflective analysis. Mr. Hodgson has appealed unto Cæsar and to Cæsar he shall go.

According, I impeach before the judgment seat of the reflective

method, Mr. Hodgson's own account of that method. I accuse him of having surreptitiously introduced into his exposition of the nature of reflection a baseless, false and mischievous assumption. He assumes that because consciousness refers to an object, that object is, *eo ipso*, a state of consciousness. He assumes that it is the very same state of consciousness which takes cognisance of it. To justify this accusation I have to prove two points—(1) That Mr. Hodgson actually holds the view imputed to him; (2) That this view is a baseless assumption surreptitiously introduced.

(1) In proof of the first point I adduce Mr. Hodgson's peculiar doctrine of objective and subjective aspects. According to this doctrine cognitive consciousness and the object cognised by it are not elements, but distinguishable aspects of one and the same existence. If we inquire what is meant by aspect, the answer is sufficiently clear and unambiguous. "*Aspect*, as a philosophical term, means a character coextensive with and peculiar to the thing of which it is an aspect. This is the formal definition. But for full understanding of it we must take into account Mr. Hodgson's emphatic and repeated warning against the confusion of aspects with elements. When we distinguish the aspects of anything, we do not distinguish parts composing it. Under each aspect we have the whole thing. Thus, every element of cognitive consciousness is also an element of the object cognised, and *vice versa*. If any doubt remain as to the meaning of the term aspect, the following passage will remove it: "Be it observed" (and this is the root of the matter) "it is not sufficient to constitute an Existent that two opposite *aspects* are put together. For that you need *elements*. Otherwise there is nothing of which the aspects are predicable, or of which they are aspects. The requisite 'something,' the existent, which has the double aspect, must first be constituted; and this it is by its constituent elements." When, therefore, Mr. Hodgson says that thing and the consciousness are opposite aspects, he means that they are the same thing regarded from different points of view, just as the line AB remains the same line, whether we consider it as the line from A to B or from B to A. Hence he constantly speaks of objects as compounded of states of consciousness. Our consciousness of things is the perception that *the feelings and thoughts composing them* are felt; our consciousness of self is the perception that those feelings and thoughts are feelings and thoughts (*Philosophy of Reflection*, vol. i, p. 110). "If we take the objective aspect of complete empirical things we find our object matter consisting of solids in various combinations and in various modes of motion. . . . All other qualities of objects . . . are attributes, are states of consciousness which arise in nerve substance on its being brought into connection with

these solid moving objects. The resistance, solidity, and motion of the objects themselves are likewise subjective in the last resort; but this group of feelings or qualities are now sundered from the rest, and set apart in combination, to form the objects themselves" (*Ib.* ii, 70). We have separated one group of *states of consciousness* as "things," and referred the other states of consciousness to it as its qualities or attributes.

(2) In the next place we have to show that this identification of cognitive consciousness with object cognised is surreptitiously assumed, and that the assumption is baseless and false. It is surreptitiously assumed because the question of its truth or falsity is never raised. It is throughout taken for granted that the method of reflection consists in analysing objects into their component states of consciousness. Thus in the general explanation of the Method of Reflection which we quoted at the beginning of this paper, Mr. Hodgson says, "It consists in a repeated analysis of phenomena as they are *in* consciousness, or as *parts* or *states* of it," &c. Nor is this merely a provisional postulate afterwards justified. Throughout the whole book I find no indication whatever that Mr. Hodgson suspects himself of making an assumption. He evidently supposes that he starts without presuppositions. That consciousness and the object to which it refers are the same thing regarded from different points of view is for him as indisputable and ultimate as the fact of self-consciousness itself.

Now I maintain from the standpoint of reflective analysis that this assumption is baseless and false. Examine the relation of the process of thinking to the object thought of in any case whatever, and you will discover in every instance that the object is not and cannot be merely a modification or content or state of consciousness at the moment at which you think of, *i.e.*, have any kind of perception or idea of it.

It will be seen that I meet Mr. Hodgson's thesis not with a particular contradictory but with a universal contrary. This is in excess of what controversial logic demands. But my aim is not primarily controversial. My aim is to determine accurately what the verdict of reflective analysis on this vital question actually is.

The manifold absurdities to which we are inevitably led, if we identify the existence of an idea with the existence of the thing of which it is an idea, have been pointed out most lucidly and forcibly by Professor James. Thus in vol. i. of his *Principles*, p. 236: "If the thing is composed of parts, then we suppose that the thought of the thing must be composed of the thoughts of the parts. If one part of the thing have appeared in the same thing or in other things on former occasions, why then we must be having even now the very

same idea of that part which was there on those occasions. If the thing is simple its thought is simple. If it is multitudinous, it must require a multitude of thoughts to think it. If a succession, only a succession of thoughts can know it. If permanent, its thought is permanent. And so on *ad libitum*." It is some comfort to me that in challenging this doctrine I have Professor James for an ally.

The issue before us is this:—Can an object of thought as such be present in its entirety in the consciousness of the thinker at which he thinks of it? Now, when I say, Is it consciousness? I mean,—Is its existence at the moment an experience of the conscious subject at the moment?—is it at the time a modification or state of consciousness? Consider first the thought of a material thing as existing in space. When I perceive a tree, I have in my consciousness a certain complex of visual, tactual motor and other elements with their protensive and extensive forms, partly consisting of actual sensations and partly of revived residua of past sensations. But these experiences are not the object thought of. What I think of is the tree regarded as something existing and persisting independently of me and my fleeting consciousness. Even if we fully accept the "Psychological Idealism" of Mill, we must deny that the perceived object as it is perceived is a present modification of consciousness. According to this view it is a group of permanent possibilities of sensation. The postulate on which it rests as explicitly formulated by Mill is "that after having had an actual sensation we can conceive a possible sensation. Now to conceive a possible sensation as such is to think about a sensation without actually experiencing it. Thus even according to the sensational idealism of Mill, a physical phenomenon is not an appearance in the individual consciousness. Take next the case in which we explicitly think of a present sensation as such. If it is under any conditions possible for the object of thought to be wholly present in the consciousness of the thinker when he thinks of it, it ought to be possible in this case. If introspective knowledge is not immediate then no knowledge is immediate. Now it will be found by applying the method of reflective analysis that whenever we try to think about our own immediate experience, we can do so only by investing it with attributes and relations which are not immediately experienced. For example, I may think of a momentary appearance in consciousness as an occurrence in my mental history, an incident in my experience. But neither my experience as a whole, nor the position and relations of any part within that whole can be given as a present modification of any momentary consciousness. Again, I can think of the general nature of the content present in consciousness abstracting from the fact of its presentation. In this case also I

am obviously not thinking exclusively of the momentary appearance. The presented content is regarded as having a quality which remains identical through the flux of its appearances. In this last instance the content is generalised by thought. All generalisation in like manner involves an objective reference which transcends the momentary consciousness. What is essential to a general concept or a universal judgment is indefinite applicability. All generalisation implies the thought of an unlimited series of particular instances. But it is needless to point out that from the very nature of an infinite series it can only be thought of, not immediately experienced. We may close this series of test cases by considering the mental attitude expressed by the word Desire. Whoever desires, desires something. Now what is it that is desired? Is it an immediate content of consciousness? Is it actually experienced at the moment in which it is desired? To say that it is so is palpably absurd. If the object of desire were actually present in consciousness, the desire would be satisfied from the outset. In other words, it could never exist. In order to be able to desire the pleasures of eating, I must think of them without actually experiencing them. I may indeed experience them and at the same time desire their continuance. But their continuance is not an immediate experience at the moment of desire; it is something which is anticipated in thought. We are able to "look before and after, and sigh for what is not" only because thought can refer to an object which is not present in the consciousness of the thinker at the time.

My own reflective analysis of cognitive consciousness, so far as it is relevant to the present question, may be stated with all possible brevity as follows. In the process by which we take cognisance of an object two constituents are distinguishable. (1) A thought-reference to something which as the thinker means or intends it is not a present modification of his consciousness at the time. I say with emphasis, "as the thinker means or intends it," because this is just the point on which I appeal to the method of reflection. To say that the object of the thought is a present modification of the consciousness of the thinker, is to give the lie direct to the essential import of the thought. (2) The second constituent of the total state is some more or less specific content of consciousness which defines and determines the direction of thought to this or that special object. This specifying content we may call a presentation. Thus in the perception of a tree the reference to an object is circumscribed and directed by a plexus of visual and other presentation, including representations, &c. It is a material thing, not a mental occurrence, a tree and not a stone, an oak and not an elm. The thought-reference together with the presentation or specifying content through which the object is discriminated,

form in their union what in ordinary language is called an *idea*.* The word *idea* in its usual and untechnical signification is not synonymous with *presentation* as above defined. It includes an objective reference of which a presentation is the vehicle. A presentation is an idea only in so far as it fulfils the function of making thought discriminative.

For the reasons assigned I cannot accept Mr. Hodgson's doctrine of Subjective and Objective Aspects—his identification of the existence of the object cognised with the existence of the state of the individual consciousness which takes cognisance of it. I am, however, fully prepared to hear that I have misinterpreted his doctrine. I think it very likely that I have done so. But I should like to know what other interpretation can be put upon his words, and especially on the passages quoted, than that which I have given to them. To prevent misconception of my meaning, I must say a word about things in themselves. From my insistence on the distinct existence of thinking and things thought of, it may be supposed that I advocate the possibility of unknowable existences. I must therefore emphatically declare that this doctrine is as repugnant to me as it is to Mr. Hodgson. An existence of which nobody can have an idea seems to me to be an absurdity. The supposition takes away all meaning from the word existence. For where there is no thought there can be no meaning. The whole doctrine of the unknowable is consequently the quintessence of nonsense.

We now have considered the general doctrine of Subjective and Objective Aspects. But before quitting this topic we must very carefully examine a passage in the second chapter of the *Philosophy of Reflection*, in which Mr. Hodgson professes to give us a formal "Analysis of the 'moment' of self-consciousness or reflection, and the relation in which it stands to both the primary and direct states of consciousness." I say that he professes to give such an analysis, because, in point of fact, at this most critical and important stage of his task he drops in a most unaccountable and disconcerting way into a question of history. What makes the matter worse is, that the department of history into which he plunges without a word of apology or explanation, is the most difficult and obscure that there is. He proceeds, without apparent misgiving, to give us a chapter in baby psychology. He distinguishes three successive stages through which the earliest baby-consciousness passes. Primary consciousness comes first, then reflective in a rudimentary form, and then direct. We must, I presume, regard this mainly as an

* Except that in ordinary language the word "idea" is not used in the case of sense-perception.

illustrative hypothesis intended to set in a clear light the distinction and inter-relations of the three modes of consciousness (by showing how one may be supposed to arise through modification or development of another, the reflective growing out of the primary, and the direct out of the reflective).

Primary consciousness, we are told, consists in "a series of feelings and thoughts existing without their being referred to objects at the time, by the sentient being." In some way or other the perception of independent objects and the perception of a percipient subject supervene upon or are developed out of these primary states. "If we would avoid any unfounded assumption in our analysis, that is, any admission into our analysis as ultimate or unanalysable fact, of what is really analysable, we must begin by assuming no more than the series of feelings and thoughts *per se*, unreferred (by their subject) either to objects or to self. . . . The series of feelings and thoughts *per se* is the groundwork of the whole; and this must be submitted to further analysis in order to see whether it will or will not furnish us with an account, or become the analysis of the two other members of our object-matter, namely, objects and self."

Clearly Mr. Hodgson's position is that "primary consciousness" contains all the elementary constituents of direct and reflective consciousness. In order to explain the nature of reflective and of direct consciousness, we have only to show in what specific manner they are compounded out of the elements present in those primary states which are the groundwork of the whole. It is obvious also that when we view the matter in this way the analysis of the derivative modes may be stated in the narrative form as belonging at least to the problematic history of at least a hypothetical infant.

In order to follow this problematic history, we must first form a clear conception of what Mr. Hodgson means by "primary consciousness." To me this has proved a difficult task. I can indeed frame a fairly distinct idea of a series of immediate experiences without reference to an object. But I cannot understand how such a series can contain "thoughts" as well as feelings. A thought which thinks of nothing is to me a contradiction in terms.

To this point I shall revert later. At present it will be most convenient for me to explain how I myself conceive the possibility of an objectless consciousness.

It is easy to show that there is by no means a complete coincidence between the existence of presentations and their significance for thought. They may exist as possible material for discriminative thinking without being actually utilised to the full extent in which they are susceptible of being utilised. At this

moment I am thinking about psychological topics. I receive at the same time a multitude of diversified impressions from surrounding things which certainly enter into my total experience. But if I refer them to an object at all, I do so in a very indeterminate way. My thought-discrimination is very far from keeping pace with the differentiation of the sensory data as immediately experienced. To quote a writer who has fallen into undeserved neglect: "We may see leaves falling from the trees, birds flying in the air, or cattle grazing upon the ground, without affirming, or denying, or thinking anything concerning them, and yet perhaps . . . upon being asked a minute after we could remember what we had seen. A man may have beheld a field from his window a hundred times without ever observing whether it were square or pentangular, and yet the figure was exhibited to his view every time he looked at it." A single sweep of the eye takes in an indefinite multitude of sensory details. But to make each of these severally significant for thought would require a long series of successive acts of attention. Of course the total impression which they collectively constitute may be significant, as in our first glance at a landscape before we begin to observe its component parts. The essential point is the antithesis between the detailed determinateness of presentation and the comparative indeterminateness of discriminative thinking. The relative independence of presentation is perhaps even more strikingly illustrated by our organic sensations. These appear to be constantly present in every moment of waking life—perhaps even in sleep. But, for the most part, they enter our trains of thought only in the vaguest way, if at all. Occasionally we say I feel well, or I feel ill, or I feel tired, or I feel bright, or I feel dull. But for the most we do not take any definite note of our condition. When we do so, we are always aware, if we reflect on the point, that the sensations which determine our judgment are not created by it, but are prior to it.

The same point may be illustrated by that process of generalisation in which we have in our consciousness what Locke calls a "particular image with a universal signification." The particular image may be that of a plane triangle drawn in red ink on a white background; the lengths of its sides may be three, four, and five inches respectively; either its vertex or its base may be uppermost, or it may occupy some intermediate position. Now what we are thinking of may be the equality of the angles of any triangle to two right angles. In that case, the various details of the presented triangle which we have enumerated are irrelevant. They are without ideal significance. On this point I may quote Mr. Bradley: "We have ideas of redness, of a foul smell, of a horse, and of death; and as we call them up

more or less distinctly, there is a kind of redness, a sort of offensiveness, some image of a horse and some appearance of mortality, which rises before us. And should we be asked: Are roses red? Has coal gas a foul smell? Is that white beast a horse? Is it true that he is dead? we should answer, Yes." But the presented redness "may have been that of a lobster, the smell that of castor oil, the imaged horse may have been a black horse, and death perhaps a withered flower." These presentations contain much that is irrelevant to the idea. Ideal significance belongs only to that part of their content which determines the thought-reference.

Presentation considered as having an existence relatively independent of thought may be called Sentience, or *Anoetic* consciousness. Thought and sentience are fundamentally distinct mental functions.

The question may be raised whether a sentient being could exist entirely devoid of thought—a creature for which the meaning of the verb to be would have no existence. May not the oyster or, at any rate, the amoeba have such a consciousness, a mere immediate experience without any reference to an object? For my part I can only reply that I do not know and dare not guess.

But the problematic conception of such a being is in some respects instructive. In the first place, it would seem that in regard to it the antithesis of Subject and Object would be meaningless. The relation of content of consciousness to consciousness in general would be only a relation of whole to part—of a particular mode of sentience to the total sentience. In such a case the words of Reid would apply without reservation: "The sensation can be nothing else than it is felt to be. Its very essence consists in being felt; and when it is not felt it is not. There is no difference between the sensation and the feeling of it—they are one and the same thing. In sensation there is no object distinct from the act of the mind by which it is felt."

Now what difference, if any, is to be found between this conception of anoetic consciousness and Mr. Hodgson's "primary consciousness." It would appear from his own words that we are to distinguish between a simpler and a more complex phase of primary experience, and it would also seem that the simpler phase is identical with what I have called anoetic experience. The passage to which I allude occurs p. 109: "Low organisms may clearly have feelings of heat and cold, pressure, light, and so on, without referring these to independent objects around them. Organisms better endowed have more complicated series of feelings; comparison of feelings becomes possible; groups of feelings can be put together and distinguished from other groups. But this is a process not of feeling only but

of *thought*; and still it has not been necessary to suppose any reference of these feelings, groups of feelings, or comparison of feelings to independent objects."

Now my difficulty is this. I can understand how it is that the simpler phase involves no reference to an object, being a purely anoetic experience. But I utterly fail to understand how the later phase grows out of this, or how it can be regarded as a more complex modification of it. *A fortiori*, I fail to understand the transition to the reflective stage in which subject and object are distinguished from each other. On the other hand, if I begin with the more complex phase of primary consciousness, I do not see how it can be properly described as objectless.

If it can compare its own feelings and put together groups, and distinguish them from other groups, it must be able to distinguish the quality of its experiences from their mere occurrence. Moreover, it must be able to think of their occurrence. It is not enough that the occurrence merely takes place. In short, one state of consciousness must be capable of taking cognisance of others, and of their relations. Such a consciousness is certainly not objectless.

Now, as I said, this puts me in a dilemma. If I begin with the simpler stage of primary consciousness I find an impassable chasm gaping between me and reflective consciousness. If I begin with the more complex, in which *thought* is possible, I do not see that there is any essential difference between them.

Let us try the simpler phase. How can it possibly "become the analysis," or contain the rational explanation either of the more complex phase or of the "moment of reflective consciousness"? Remember that we must on no account introduce an essentially new kind of element into this primitive experience. It must be regarded as through and through constituted by mere modifications of anoetic sentience.

These modifications have indeed a protensive and extensive form. But their protension and extension is merely experienced. It is not thought of. Now abiding strictly by the logical conditions of the problem, we inquire how can this objectless consciousness become capable of referring to objects, by mere internal development—mere unfolding of its own potentialities. So far as I can see the question is an absurdity. Mere changes in the order of the successive and simultaneous occurrence of these immediate experiences, or in their duration, or in their sensuous quality, are absolutely irrelevant. Manipulate them as you like, there is not the quiver of an advance towards the construction of the thought of an object out of a series of purely anoetic experiences.

Now let us try the alternative view. Let us begin with a primary experience, which can think of its own states, their qualities and relations, but not of physical things. Immediately we are overwhelmed by a flood of perplexities. How does this primary consciousness, which is also a thinking consciousness, get itself evolved out of the earlier primary consciousness which has no thoughts? If thought is really primitive, why does not Mr. Hodgson frankly and explicitly acknowledge it as a fundamental and inseparable element of human consciousness—at least co-ordinate with protensive and extensive form and with feeling? Above all, what is the essential difference between the comparing and distinguishing and identifying thought of primary experience, and that perception of an object which, according to Mr. Hodgson, first arises in the moment of reflection? Here I must again quote, “What,” asks Mr. Hodgson, “is the first and simplest reflection, which arises in the primary consciousness of an infant? The answer, which is given by introspection, is simple. It is this: these (primary) thoughts and feelings are not only thoughts and feelings, but bundles of constantly connected thoughts and feelings, that is, ‘things.’ The connection between them belongs to them. Therefore they are *things* as well as and without ceasing to be *states of consciousness*. They have a double aspect; that which was undistinguished has, I now see, a distinction into consciousness and object of consciousness.” Again, “Our consciousness of things is the perception that *the feelings and thoughts comprising them* are felt; our consciousness of self is the perception that these feelings and thoughts are *feelings and thoughts*.” The object in reflective consciousness is thus identified with certain relations connecting primary states. But the primary consciousness in its complex state itself comprehends thoughts of the relations between its states. Where, then, is the essential difference in this respect between primary and reflective experience? As regards the distinction between subjective and objective aspects I shall provisionally accept Mr. Hodgson’s account just for the sake of argument, though I must add, in parenthesis, that, considered as a narrative of something which takes place in the mind of a baby, this account seems to me to be grotesquely improbable. Taking Mr. Hodgson on his own terms, let us now examine the transition which he supposes his baby to make from reflective to direct or separative consciousness in which objects appear as things distinct and separate from the cognitive subject. I give it in his own words, p.114:—“Let us now endeavour to trace the method by which this direct and separative consciousness springs from the distinction of aspects drawn by reflection. Primary consciousness suffices to separate groups or bundles of percepts, existing simply as states of consciousness, from

one another, and the body of the observer is one of the groups. It is that group round which the rest seem to cluster; which is present when any of the rest are; and which is also present when feelings are experienced which have no visible and tangible existence outside the body, or at any rate only an imagined one; I mean such as heat and cold, internal bodily sensations, appetites, desires, and emotions. Upon this state of perception, reflection supervenes, whereby feelings and thoughts are distinguished as being at once feelings and thoughts as well as what we afterwards call 'things.' Two analyses have then to be combined, that given by primary consciousness into separate groups, and that given by reflection of every group into inseparable aspects. Some *hypothesis* has to be found which will render easy the holding together of these two analyses. The hypothesis adopted is, that all feelings belong to the body, and that this 'thing' which is already separate from other 'things' is different in kind from them, inasmuch as it is the abode and source of feelings; in other words the body becomes a person."

Now to me this passage is the most perplexing to be found in Mr. Hodgson's writings. In the first place what motive has this remarkable infant for framing a hypothesis? What difficulty is it in? It knows about certain groups of states of consciousness and it finds that one of these is constantly present together with each of the others as they successively occur. What more does it want? Why should it set about framing a hypothesis? Why does not Mr. Hodgson's philosophy satisfy it? But if this restless and mischievous infant will take it into its head to construct hypotheses, we have at least a right to expect that it will construct them out of no other material than that which it possesses, according to the inventory of its riches as given by Mr. Hodgson himself. But the hypothesis adopted is that the body is the "abode and source" of feelings. Now what does Mr. Hodgson's reflective baby know about "abodes and sources," or about what we call a "body"? How it can deliberately say to itself that a certain fixed order among certain of its conscious states is the abode and source of other fixed orders among other states, I cannot attempt to imagine. The infant occupying the Hodgsonian standpoint must know from the outset that its hypothesis is a lie. It knows that "things" are composed of states of consciousness grouped in a certain way, and it therefore must reject with infantile indignation the suggestion that they are separate from, and independent of, his consciousness, and that one of them is the house in which the rest are shut up, or the well from which they are drawn.

I do not see why the baby *should* frame any hypothesis at all in the matter, and still less do I see how it could frame the one

attributed to it. Having grasped the distinctive principle of Mr. Hodgson's philosophy, I do not understand why it should let it slip again. Still less do I see any reason why, having once got rid of it, it should on reaching years of discretion recur to it once more.

SYMPOSIUM—IS HUMAN LAW THE BASIS OF MORALITY, OR MORALITY OF HUMAN LAW?

I.—*By* PROFESSOR J. BROUGH, LL.D.

Problem.

THAT one thing is the "basis" of another may be made to mean almost anything you please. All depends on how you identify the things and interpret the relation.

As regards the things now in question—What Human Law is, may be thought definite enough, even although Austin has spent so much pains in elucidating the matter, but morality is a vaguer term, while the metaphor of base and superstructure is about as vague as metaphors are made. Of course the interpretation must be made which will give us a problem best worth discussing and most convenient now to discuss.

Human law in the sense determined by Austin may be discussed in its relation to either morality in Austin's sense, Positive Morality, or morality in the popular sense, Austin's Divine law. Its relation to positive morality offers an important problem to historical science, Which is the earlier form of social legislation? Does force residing in definite authoritative persons first give to society its cohesion, and so supply the sphere of social interaction within which positive morality subsequently grows? Or does society cohere by virtue of inner attractions between items of humanity, create for itself the atmosphere of positive morality, and then, as one among other advances in differentiation, lodge the enforcement of the deeper conditions of social harmony in a definite nucleus of authoritative persons?

A problem of a different kind, and one of practical rather than scientific interest, would be the mutual influence of positive law and positive morality in shaping each the content of the other, and as a consideration for the conscious legislator when he draws up his schemes.

Human law may also be discussed in relation to morality popularly so called, ideal conduct, Austin's Divine law. This latter phrase reminds us that it is objectionable to treat the two as having an

equally obvious existence. The positive exists differently from the Divine, and is distinguished from it by that very fact. Let our problem then be stated as the relation between positive law and man's faculty of self-government, thus reading Divine law into psychological language rather than metaphysical. We may then advantageously broaden our problem by coupling on the same side of the antithesis positive morality with positive law. It shares the same kind of existence, and its relation to self-government must be similar. The peculiarity that it vindicates itself through unappointed and uncertain agents has little to do with its basis or superstructure as found in the secret reckonings of a moral agent. Our problem, then, is the relation of the positive to the ideal, the outward to the inner, the legislative to the deliberative.

Several such relations might obtain which would be analogous to the physical relation between basis and superstructure. The one might enter into a scheme of logical premisses from which definite details of the other might issue as conclusions. Heaven's magistrate, before decreeing what we shall render to Cæsar, may wait to learn whose image and superscription has been stamped upon currency by the powers that be: that is to say, the ideal may be deduced from the positive. On the other hand, the positive may be deduced from the ideal, *e.g.*, courts of law may refuse to look at contracts whose consideration is *contra bonos mores*.

Again, the influence of the positive upon a man's mind may scientifically account for his recognition of the ideal. Education under authority may be the root of conscience; or, on the other hand, it may be the moral in man's nature, which accounts for the positive in social life. Because England decides not to be free, it may become sober, or because England decides to be sober she may give up her freedom.

In the third place, out of the faculty of self-government may issue a Law of Nature which to the individual prescribes peace with his fellows; or there may issue a supreme aim of individual effort which in its very nature assumes society and becomes an aim for society and a principle of law. "All men find their own in all men's good."

Or there might be, on the other hand, an ideal social state such as Spencer imagines to be the goal of evolution, which imposes its models upon the individual conscience, so that the ideal man is he who lives in the ideal society, and needs be moral only because he does live in that environment.

My own opinions I wish to state merely in regard to the possibility of basing law upon morality, in the sense of finding a common objectivity such as just supposed, and one which is primarily indi-

vidualistic—a something in the objectivity that appeals to conscience, which also appeals with equal force to what might be called the legislative faculty, the function which most people occasionally exercise of contributing their share to the consensus of public opinion on moral matters and of dropping the voting paper into the ballot box.

There is used in Symbolic Logic the mathematical symbol of division, the fraction, to express a kind of problem to which ours belongs : $\frac{x}{y}$ means a problematic class which, so far as it happens to be y , is also x . Take away its qualification of being y and it becomes something wider and simpler than x . But this genus needing the qualification y in order to remain x is not further determined. Now let x be positive law and morality, and let y be the fact of enforcement by authority. Our problem is to identify by further determination $\frac{x}{y}$, and to say whether it is involved in individual self-government. Enforced law and morality we know, but what is that which is not such, and only not such when and because it is not enforced? The phrase Law of Nature stands for a genus of the kind sought. And the question propounded to our Symposium directs us to look for it within the sphere of our moral faculty.

Solution.

The faculty of self-government is wider than the moral faculty as usually meant by this phrase. It is that which harmonises varied activities of the same man, and successive exercises of a similar activity. Among the varied activities so brought into the system of life are doubtless those of moral criticism and political influence. In an age when legislation has become conscious and purposive each man may contribute his item to the mass of social opinion and legislative constraint. A man has many good motives for taking his share in shaping the environing conditions under which he lives. These motives have no nearer connection with his conscience than any other motives, say those which lead him to marry or to join a club. Just as there are bachelors and solitaries among us, there are citizens who do not vote, and there are gossips who make it a rule never to censure a neighbour. But supposing he does take his share, what is the one unavoidable and constant effect of his activity on his own conscious life? What, consequently, is the constant motive which ensures that wills shall always collect and express themselves in law?

The constant motive for the exercise of legislative function is that man thereby reduces his social surroundings to order, minimises the shiftiness and chaotic in the world of human volition with which he is surrounded. The first postulate of all reasoned action is an ordered world. But with the course of human development under the stimulus of natural selection, man tends to be surrounded by his fellows and to join them in united effort. Their conduct, and what it will from time to time be, becomes one of his most important premisses for practical reasoning. A second great postulate for reasoned action now uprises, namely, social order. To secure it man assents to traditional law or lends aid to the manufacture of new law. Legislation, therefore, is the widening of the sphere of individual reason.

Kant says that it is a hindering of hindrances to freedom. But the freedom he speaks of implies a moral ideal. Suppose, however, that reasoned action were exclusively prudential, that no moral imperative entered into its outlook, law would still possess a causal ground and a final purpose. The $\frac{x}{y}$ of which we are in quest would not be found among moral imperatives, but it would be among a system of more abstract principles, the supreme postulates of reasoned action springing from our intellectual nature, and binding in *foro interno*, as Hobbes would say, to the extent that it is desirable they should be enforced. If any one declares that man's moral ideals are also ideals of law, the onus lies upon him to prove it; and his proofs must always fall short of a complete affiliation of law upon morality. He can only prove that added to the frame and outline of legislation which springs inevitably from prudential reason alone there is a filling from moral reason. And even this contribution from moral reason has not itself necessarily a moral complexion. Kant even held that it was a contradiction to regard self as under a duty to promote morality in others. The moral faculty is primarily a faculty of self-government, and has no closer connection with legislative action and influence over others than, in Butler's famous map of human nature, any "particular passion" has with "the principle of Reflection," or than the watchword of a political party in power has with that structure of aims and conventions called International Law.

II.—By D. G. RITCHIE, M.A.

Professor Brough has called attention to the need of clearly defining what our problem is, before we attempt to proceed to its solution. But I do not feel that he has made the solution easier by translating the problem into Austinian phraseology. He himself implies that Austin's elucidations do not always bring light. It seems to me that, although a merely historical answer is never a sufficient solution of a philosophical problem, every philosophical problem must be stated with some recognition of its historical aspects; we must consider how the question has come to get into its present shape—in other words, we must take account of previous solutions. The first of the two alternatives suggested by the question before us would be the answer of Hobbes, who says:—"Where there is no common power, there is no law; where no law, no injustice"—the theory of the meaning of right and wrong already propounded by the Greek sophist Thrasymachus in the first book of Plato's *Republic*. This is the theory which forms the basis of the orthodox English Analytic Jurisprudence; but Hobbes stated it without discriminating, as Bentham and Austin do, between what is legally and what is morally right and wrong. The second alternative is that adopted by all those various schools, from the Stoics downwards, who maintain that there is a *Jus Naturale*, distinct from and superior in ultimate authority to human law. The positive law of the State "partly coincides with natural law"—I am quoting Father Rickaby (*Moral Philosophy*, p. 359)—"in urging the practice of that limited measure of morality which is necessary for the State to do its office and to be at all But State legislation goes beyond the natural law," in so far as it must define and apply the precepts of the Law of Nature. On this last head I fancy there is no serious dispute, at least so long as the proposition is stated in sufficiently general terms, *e.g.*, if it be held to be a precept of the Law of Nature that we should "give to every one his own," it must be admitted that what is "his own" will, to a very great extent at least, depend upon, and vary with the particular customary or statutory law of this or that society. Certain things, again, may be considered "indifferent" prior to legislative enactment, but, when they are once forbidden or commanded, it becomes a duty, resulting from the general principle of political obligation, to observe the law, unless in those exceptional cases where such obedience violates conscience. On this, again, so long as it is stated in general terms, there is no important difference of opinion.

As I imagine there is no one now-a-days prepared to defend

seriously the paradox of Thrasymachus and Hobbes, our problem practically comes to be—In what sense can positive law be said to be based upon a *Jus Naturale*? The supposition that the only alternative to the theory of a *Jus Naturale* is such a theory as that of Hobbes has undoubtedly contributed not a little to the durability of the Stoical theory in its various forms. Now the theory of a *Jus Naturale* has often been criticised on the grounds of history and scientific anthropology. The theory is, however, not necessarily bound up with the idea that there actually was in the past a state of nature in which the Law of Nature prevailed prior in time to the existence of the civil state; but, nevertheless, the traditional picture of a golden age did a great deal to give vividness and plausibility to the theory of a Law of Nature. And, on the other hand, the spread of scientific ideas about the evolution of human society, more accurate knowledge of the actual condition of "the noble savage," and the diminution of the gap between primitive man and the lower animals have helped to render the idea of a *Jus Naturale* less significant. It is not necessary indeed to go to the most primitive societies: even in comparatively advanced societies there is no definite line between the legal and the moral. In the customs (*ἔθνη, mores, Sitten*) of all earlier types of society are included what we should call "law" and "morality" not yet differentiated. The Law of Moses, *e.g.*, contains a criminal code, a civil code, moral precepts, regulations about ceremonies, &c., without any recognition of the differences that suggest themselves at once to our minds.

As a matter then of historical origin, law as we understand it (legal obligations being those which the law courts will enforce) is not prior to morality (moral obligations being those which, whether enforced or not by the courts, and which, even if prohibited by the law of the land, have the sanction of public opinion or the sanction at least of the individual's conscience). But neither, on the other hand, can we say that morality is prior to law—unless we unduly (I mean for purposes of historical investigation) narrow the meaning of the latter term. In a society of the primitive type a rigid observance of custom is so essential to social cohesion, and is generally so severely enforced by the necessities of the struggle with nature and with other societies, that there can hardly be either (1) commands habitually enforced by the chief which are not approved by the whole tribe, or (2) reflective individuals setting up a private conscience of their own. A struggling society cannot afford to tolerate the religious or the ethical dissenter. It is only when a society is firmly established and definitely organised that it can safely become so complex and heterogeneous in ethical character that there can be a difference between (a) the definite law of the land, applied and enforced by

formal and official methods, (b) the maxims as to conduct enforced by general opinion, *i.e.*, the opinion of an indeterminate number of persons, and (c) the reflective judgments about right and wrong of isolated individuals or small groups. Where such differences exist mutual action and reaction become possible; *e.g.*, a small group of religious or moral dissenters (I mean, of course, dissenters in matters of conduct) may first of all gain the toleration of the law—perhaps from a strong and liberal-minded despot—and may then gradually overcome the opposition of public opinion and may finally protect or even enforce by the law some of the practices that were once criminal. Thus, in examining the history of any particular law or of any particular moral idea, we may find that, so far as concerns the community as a whole, sometimes the law was the (historical) basis of the moral idea, and sometimes *vice versâ*. But, it will be observed, in those cases where a moral sentiment in the average person is due to a law, the sentiment which originally made it possible to pass and to enforce that law must have been due to the efforts of individuals guided by their own sense of what was right. Hence it may seem that, in the long run, as a matter of history, law is based on morality. If, however, we pursue our historical analysis into the region of individual conscience, we shall find that that in its turn has its antecedents in the laws and institutions which surround the individual. Institutions may educate the individual to criticise the institutions themselves, *e.g.*, self-governing societies of legally equal slaveholding freemen suggest to their more reflective members ideas about the rights of individuals in general which might never have occurred to members of a society based throughout on inequalities. The individual conscience can only come to differ from the social conscience by reflecting on the material supplied to it by institutions. Thus, if we were to extend the term “law” so as to include all social institutions and customs, we might rather say that morality is based on law. The Law of Nature, in virtue of which any one condemns the law of the State, turns out on examination to receive its content from the suggestions of particular societies. The co-existence of separate societies of different types and in different stages of development and the tradition of past societies contribute to the reflective critic of his national institutions the materials for the ideals, in the light of which he condemns the actual.

But, it may be argued, although as a matter of history our ideas about right and wrong are dependent upon social institutions, yet we may regard the Law of Nature as a statement of those essential principles on which the stability and welfare of all societies ultimately depend. The Law of Nature may be taken to represent an ideal code which we gradually, as the result both of unconscious evolution

and of conscious reflection, came to apprehend more and more, so that, though not in time yet in idea, it is prior to and, in this other sense, the "basis" of particular laws and customs. Understood in this way the idea of a Law of Nature is unassailable on historical grounds. And even evolutionist ethics might accept the idea of the Law of Nature as a statement of the essential conditions of social cohesion and growth—these conditions coming gradually to light in the course of evolution. Thus we might say that, since a society based on complete individual selfishness could not hold together, dishonesty and treachery—towards one's own tribe—were condemned by the "Law of Nature" as that may be supposed to exist even among all social animals. Similarly, when at a more advanced and reflective stage of social existence anyone can apply "Utilitarian" criteria, and maintain that such and such principles of conduct are right (although not yet adopted anywhere) because likely to promote the well-being of human society, we may allow him to express this by saying that those principles are in accordance with the Law of Nature, as that can be discovered by the use of Reason. And, in fact, the great majority of those who have attempted carefully to work out a *system* of "*Naturrecht*" (Natural Law) have understood Nature as meaning, not what exists as fact in the universe apart from human interference, but what is, in their opinion, in accordance with the conclusions of human reason applied to matters of conduct. The *Jus Naturale* of the Roman jurists and the *Naturrecht* of the Germans are practically (as has been pointed out by Sir Henry Maine and Sir F. Pollock) the equivalent of Bentham's Theory of Legislation, though in appearance the very opposite.

But the appeal to "Nature" is so very ambiguous, and is so apt to mean an appeal away from Reason to unanalysed instincts or sentiments, that it would be better if those who use the term as just explained were to avoid it, and to say explicitly that such and such principles are right, not because they are "natural," but because they are in accordance with the well-being of a particular society, smaller or larger, or of human society as a whole. The permanent value of the work of Bentham and Austin, it seems to me, is just this—that they helped to clear jurisprudence and ethics from vague appeals to the Law of Nature, a conception which did excellent service so long as it was a negative or critical weapon for attacking mere external Authority, but which in its turn is apt to become an irrational and anti-rational dogma. The constructive work of Bentham and Austin is less satisfactory. Their Utilitarian ethics needs to be separated from its Hedonist basis and interpreted in the light of the evolution theory; and their jurisprudence needs to be penetrated by the evolutionary and historical spirit.

From the point of view of evolutionist ethics the question before us contains a false antithesis. As we have seen, Law (in the sense of definite "positive" law) and Morality (in the sense of conscious reflective morality—*Moralität*, as distinct from *Sittlichkeit*) are both developed from the common *origin* of social custom, and both require to be judged by the same *standard* of social well-being. (The term "basis" in our question must mean either (1) "origin" or (2) "standard.") The sphere of law will vary in different communities according to the pressure of circumstances and the wisdom or folly of legislators. What *ought to be* the sphere of law must be judged by the standard of social well-being, and cannot safely be determined *a priori* by appeals to irresponsible intuitions as to what is "natural."

I may appear to have neglected one aspect which the question may present to many persons, viz.: Can morality be explained without reference to a Divine legislator? On this I will only say, that I do not think scientific ethics can take account of any alleged *Lex Divina* which refuses to be judged by the standard of human well-being, or which is said to be not discernible by human Reason,* though a complete philosophy of ethics must raise the question of the ultimate relation of man to the universe as a whole, and must regard the evolution of social institutions and of morality as one of the manifestations of that reason which all science and philosophy, that is not sceptical or dogmatically pessimistic, tacitly or explicitly assume to pervade the world.

It will be observed that I have generally taken "morality" as meaning the moral ideas and judgments of mankind, and not the actual conduct of human beings nor the motives which, as a matter of fact, may influence their conduct on particular occasions. In the latter sense of "morality," the question hardly seems to me to admit of profitable discussion in general terms. Whether A's morality depends on law or not, *i.e.*, whether he does not steal my purse because he is afraid of the policeman, or because he is afraid of his neighbours, or because he is afraid of hell, or because he is afraid of his own conscience; and whether B's conduct as a legislator depends on his morality or not, *i.e.*, whether he voted for an alteration in the law of the land because he wished to make that law conform to the Law of Nature, or to the will of God, or from purely "Utilitarian"

* The idea (in Thomas Aquinas and his followers) of a *Jus Naturale* (or *Lex Naturalis*) which special Divine Law cannot set aside, though it may supplement it, has been a considerable check on irrationality in religious ethics. When morality is thought of as depending on the *arbitrary* will of God, the rational consideration of ethics is made impossible.

considerations—these are doubtless very interesting problems, but they would require a separate solution in every individual case.

With the problem expressed by Professor Brough in an algebraical formula I cannot attempt to deal. I must leave it to those who understand moral algebra, which seems to me as mysterious and, I will add, as illegitimate a branch of either mathematics or ethics as “moral arithmetic.”

III.—By G. F. STOUT, M.A.

On Mr. Ritchie's paper I have nothing to say. After the closest scrutiny I find nothing in it which I care to call in question. It seems to me to be a lucid and sensible exposition of the general relation between *Moralität* and *Sittlichkeit*. Hegel's treatment of this question is admirable, and Mr. Ritchie re-states the Hegelian view in a very satisfactory manner.

But Mr. Ritchie appears to me to have treated Professor Brough rather badly. Professor Brough, in point of fact, raises no question of moral Algebra or moral Arithmetic. He has unfortunately chosen to formulate his problem in the technical symbolism of Formal Logic. By this course he has rather obscured than elucidated his meaning, and has caused Mr. Ritchie to misunderstand him. But the problem itself is perfectly intelligible. Aristotle says that the end of the state is good life. “It exists for the exercise of the qualities which make men good husbands, fathers, and heads of households, good soldiers and citizens, good men of science, and philosophers. When the State by its education and laws, written and unwritten, succeeds in evoking and maintaining in vigorous activity a life rich in noble aims and deeds then, and not till then, has it fully attained the end for which it exists.” Now, if I understand Professor Brough aright, he challenges in a sweeping way the proposition that the direct and essential end of the state is a good life. His own position is, I take it, the following. The primary aim of legislation is to secure to the individual a sphere of free activity by establishing a fixed social order, which enables him to anticipate with confidence the consequences of his own actions. Thus the rights of property enable a man to sow with the natural and normal expectation that he will reap; similarly, the legal enforcement of contracts enables a man to give his labour to others in the reasonable expectation that he will receive the reward of his toil. This is what Professor Brough means when he says that “the constant motive for the exercise of the legislative functions is that man thereby reduces his social surroundings to order, and minimises the shift and chaotic in

the world of human volition with which he is surrounded." It is especially to be noted that Professor Brough assumes the relation of the individual to his social environment to be essentially analogous to the relation of the individual to his physical environment. The laws and institutions of society have for human beings no other kind of worth than the laws and order of nature. They make possible the natural and normal expectations on which conduct is based, and therein consists the entire practical value of both.

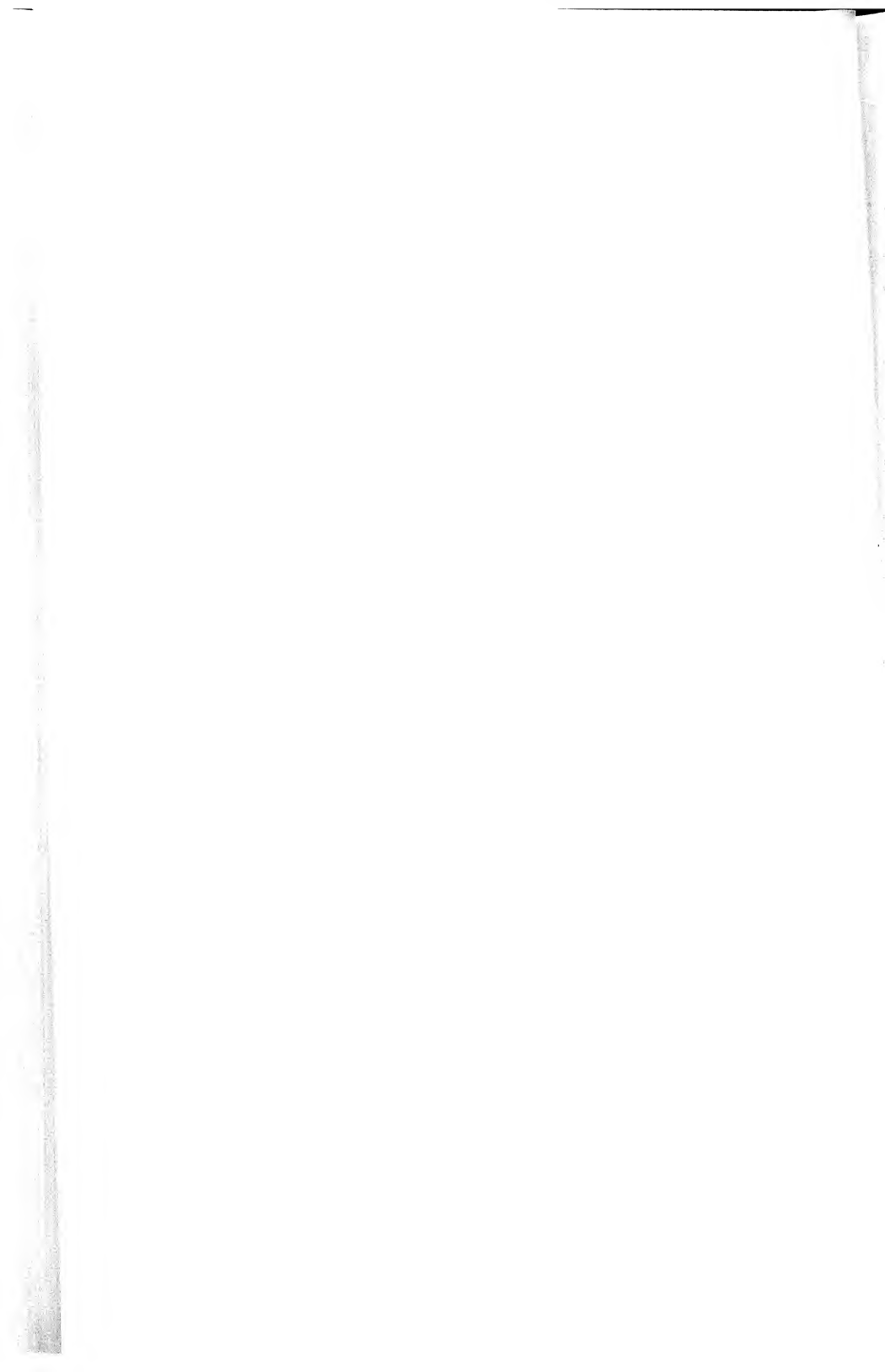
I have now to criticise this view. The first objection which presents itself is the obvious fallacy of the assumed analogy between the physical and the social environment.

Material things may be legitimately treated as mere means for the realisation of human ends. But human beings are ends in themselves. Laws which are to regulate the voluntary conduct of self-conscious persons in their relation to each other differ essentially from laws of the co-existence and sequence of physical phenomena inasmuch as they admit of the distinction between the morally bad and the morally good,—between right and wrong. But in so far as moral considerations come into play, they must dominate all other motives. Hence I cannot agree with Professor Brough that in dropping my voting paper into the ballot box I ought primarily to aim at an end which is *per se* morally indifferent. Many enactments and institutions well adapted to ensure social stability may none the less be an abomination to right-minded persons. Social instability is better than moral stagnation. Professor Brough says that motives which ought to guide a man "in contributing his item to the mass of social opinion and legislative constraint, need have no nearer connexion with his conscience than any others, say those which lead him to marry." I do not suppose Professor Brough to mean that conscience has nothing to do with marriage. His point, I presume, is that in getting married we need not propose to ourselves as an immediate end the realisation of the moral law, and that in this respect the act of dropping our vote into the ballot box is analogous to the act of taking a wife. I confess that I entirely fail to detect the analogy. In my legislative functions I am directly attempting to impose a law of conduct on human beings. But if in judging the relative value of laws of conduct, I prefer some other criterion to the moral ideal, I am myself immoral.

Professor Brough appears to admit that individual character is to a very large extent moulded by the laws and institutions of the society to which the individual belongs. I suppose this to be his meaning when he says:—"Education under authority may be the root of conscience." Now, if in dropping your vote into the ballot box you are helping to mould the character or "educate the con-

science" of a whole people, it appears to me that all other possible effects of your action must be regarded as secondary to this in importance. But in the moulding of character no end is admissible except the realisation of the moral ideal. We ought, therefore, in dropping our vote into the ballot box to aim primarily at this. If this had always been effectively recognised as the paramount end of legislation and of social institutions, the world would have been saved from an immense amount of sin and misery. Mere social stability may be attained at too great a cost. Social order is good only in so far as it is moral order.

On the general question, as formulated in the words which are intended to define the subject of the present discussion, I repeat, my view is essentially the same as Mr. Ritchie's. The historical basis of morality is to be found in that primitive stage of society in which moral and the legal order were undifferentiated. This may be expressed by saying that in order of genesis, human law precedes morality, considered as a matter primarily concerning the individual conscience. On the other hand, in logical order, the basis of the human law is the realisation of the moral ideal. The end of the state is individual freedom only inasmuch as individual freedom is a necessary condition of good life. It can only be regarded as an absolute end if we mean by it not freedom from external constraint, but that inner freedom which is not merely a condition of good life, but is itself identical with good life.



PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

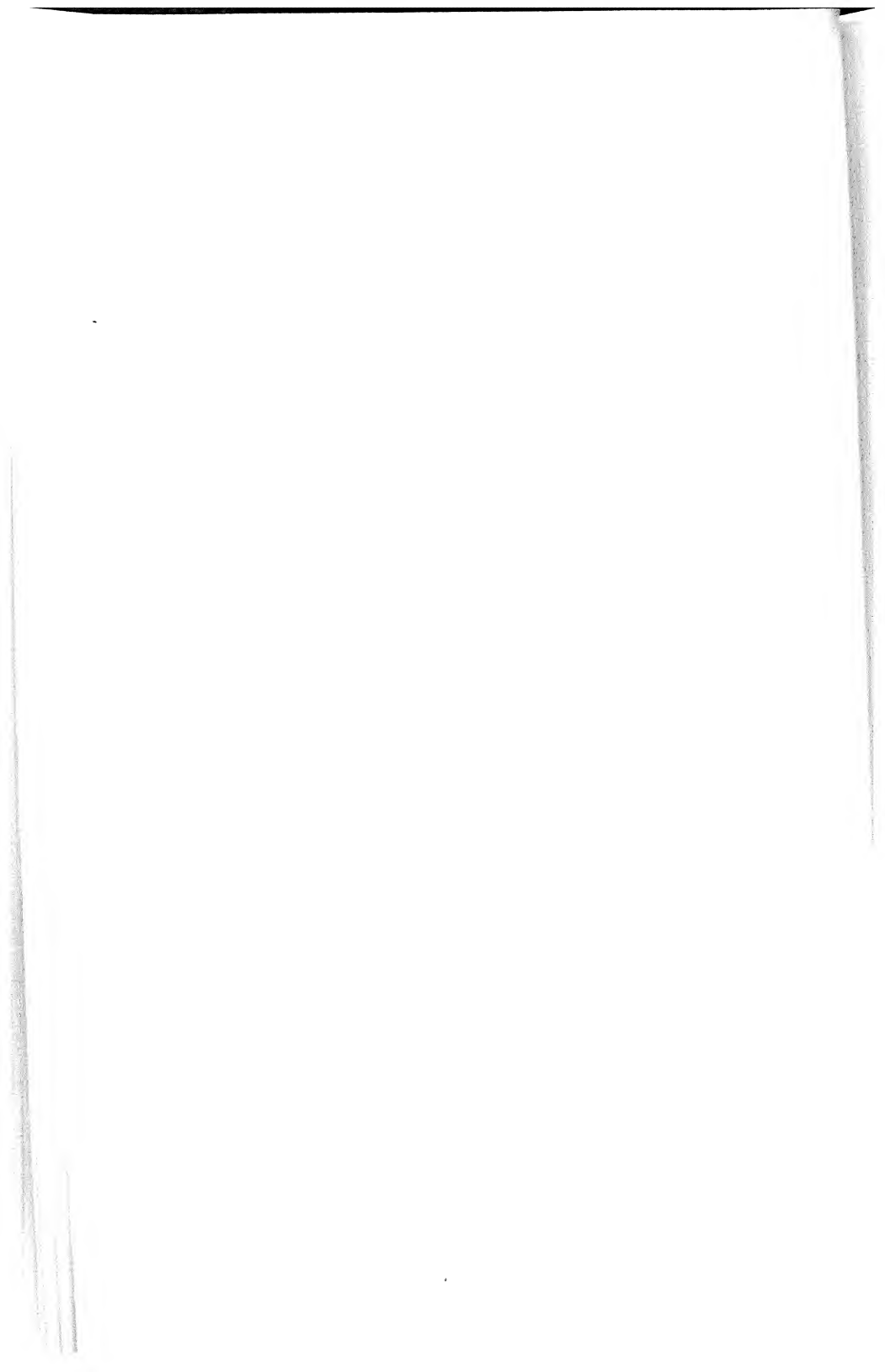
FOR THE

SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.
No. 3, Part I.

CONTENTS.

	PAGE
Presidential Address—The Conception of Infinity—By Shadworth H. Hodgson	1
The Conception of Necessity as applied to Nature and to Man—By D. G. Ritchie, M.A.	19
Import of Categorical Propositions—By Miss E. E. C. Jones	35
Symposium — Is Religion pre-supposed by Morality, or Morality by Religion?—	
I. By R. J. Ryle, M.A.	46
II. By C. C. J. Webb, M.A.	50
III. By A. F. Shand, M.A.	54
On Mr. F. H. Bradley's "Appearance and Reality"—By H. W. Carr . .	59
On the Ethical Interpretation of Life and Nature—By A. Boutwood . .	73



PAPERS READ BEFORE THE SOCIETY, 1893-4.

PRESIDENTIAL ADDRESS—THE CONCEPTION OF INFINITY.

(For the Fifteenth Session (1893-1894) of the Aristotelian Society.)

By SHADWORTH H. HODGSON, *Hon. LL.D., Edinburgh, Hon. Fellow of Corpus Christi College, Oxford; President.*

I.

It is a thorny subject, the conception of Infinity, to which I invite your attention this evening, by way of introduction to the work of this, the Fifteenth Session of the Society, on which we are now entering. But thorny as it is, it is one which opens up a vista into the whole subject-matter of Philosophy, so clear and penetrating as to yield to few in point of instructiveness, if only we can succeed in getting a distinct view of the nature and elements of the conception in question, or in other words of the facts of experience which it sums up and embodies. I mean that an insight into the essential constituents of this conception, if we can obtain it, will furnish us with a key to many of the most warmly contested doctrines of philosophy, and that both in its speculative and in its practical department.

By a man's philosophy we commonly and rightly understand that most comprehensive and systematic of all the views which he can take of the Universe in which he lives, and of his own relations to it. It is therefore to a very great extent a matter of temperament and inborn tendencies of character. But we do not credit a man with having a philosophy, if the most comprehensive view which he takes of the Universe is framed in obedience to that temperament and character alone. The dry light of experience must be made to illumine the facts which otherwise would be coloured by his particular disposition, and the special colouring thence received must by attention to experience be overpowered and obliterated; that is to say, the results of experience must be willingly preferred to the suggestions of temperament, on the ground of their superiority in

▲

point of truth; before the view which any man takes of the Universe, however comprehensive and systematic it may be, can in any way deserve the title of philosophical. It is essential to philosophy, that Truth should be its standard; Truth independent of "the personal equation," as it is called, its admitted aim. This resolve, however, this consciously adopted aim and standard, is still but the beginning, not the completion, of philosophy. We are not delivered from illusions of temperament merely by perceiving generally their essential difference from the dry light of facts, and merely by resolving to be on our guard against them. To effect the discrimination in particular cases is a task always with us, and that in which the peculiar difficulty of philosophy resides.

Now there are two opposite views taken by philosophers of the Universe which seem to be founded to a great extent in temperament, though it is not easy to connect them definitely with specific differences therein. Whether they are so or not, they are at once sufficiently marked, and sufficiently general, to serve as two heads under one or other of which all philosophical systems may be brought. We seem all of us spontaneously, though it may be tacitly and unconsciously, to expect—some that the Universe in its total nature *is*, the others that it is *not*, within the intellectual grasp of man. Some approach its philosophical consideration with the one expectation, others with the other; and these opposite expectations, tacit though they may be, determine very different modes of regarding the phenomena, very different selections of phenomena to regard, and consequently very different philosophies or views of the Universe itself, unless and until allowance has been made for the original bias in either direction, and its effects discounted, in consequence of a careful and strict attention to the facts of experience alone, as they are perceivable by all alike, independent of the previous particular expectation of individuals.

If this view of the case is correct, there can be no more useful question for any one to put to himself than this,—To which of these two groups do I belong, in virtue of my natural bias, or previously formed expectation? What do I tacitly expect to find as the result of philosophy,—that I shall be able to give a definition of the Sum of Things, or that I shall not be able? And how is it that I have come to entertain this expectation, whichever it may be? What are the facts upon which it rests, independently of temperament or natural disposition, independently of pre-philosophical habits and modes of thinking? Of course I take credit to all members of this Society for the desire to bring all questions, even the most comprehensive and the most deeply interesting, into the dry light of experience, and thereby make Truth the paramount consideration in

discovering or accepting an answer. No other assumption is for : n instant admissible. It is the common ground on which all our discussions proceed. In this sense, then, it is, that I now go on to consider what light is thrown on this general question, I mean the justification of the one or the other of the two opposite expectations spoken of, by examining the nature of the conception of infinity, that is, distinguishing the elements which it universally and necessarily contains in combination, or which, in other words, are the essential characters which it involves.

II.

What we mean by *Infinity* is, therefore, the question immediately before us. And in the first place I think it is clear, that it is as an attribute, and not as an entity or substance (using these terms in the most general sense possible), that we conceive it. The attribute of being infinite is what we call infinity, an attribute belonging to something other than itself, which other thing, for that reason, we call infinite (as well as by its own name), but not infinity.

In the second place, since all attributes qualify the substance or entity which they belong to, contributing to make it what it is, we see that in this sense infinity also must be a quality of the things it belongs to, that is to say, so long as it belongs to them; for nothing has so far been implied as to its being a necessary or universal attribute of the things it belongs to, or that there is anything which necessarily and universally possesses it.

Thirdly, though infinity is in this large and general sense a quality, it is yet a quality of a very peculiar kind; and this is a consideration which at once discloses a source of confusion in the idea which we form of it; namely, it is a *quantitative* quality; it belongs to a class or group of attributes which, because they contribute to determine what the things they belong to are, must in the large sense be called qualities, but which at the same time are characterised as quantities or relations of quantity, and are therefore directly opposed to qualities in a more specific and narrower sense of the term. This phenomenon of a double sense, a wider and a narrower, in one and the same term, in the wider of which it includes something to which in the narrower it is exclusively opposed, is of frequent occurrence in philosophy, and always deserves particular attention.

In the present case we see, that there must be something or other, be it one thing or more, an essential quality of which is quantitative, making it or them capable of quantification; and which on this account, seeing that they are the substance, entity, or seat, of that quality or attribute, must be regarded as the source of all our ideas

of quantity and quantification, the thing, object, or reality, which we intend or ought to intend, when we speak of quantities.

What this reality or these realities are, we shall see by going on to consider the narrower sense of the term *quality*, the sense in which it does not include quantity, but is exclusively opposed to and contrasted with it. If we take the whole nature or *whatness* of anything in experience *minus* its quantity, that is, abstracting from the question how much or how little there is of it, we find that what remains is some specific mode or modes of feeling, whether of sense or emotion, bodily or mental. What for instance is a rose? A certain combination of colours, odours, and sensible resistances to touch and pressure. Deducting, by abstraction, their quantity from these feelings, what we have left are the abstract feelings alone; for the shape or figure in which they appear, and the fact that they appear in combination as a single object, the rose, disappear along with their quantity. Pure abstract feelings, in a combination which is also an abstraction, are all that remains of the concrete rose. And this abstract combination of abstract feelings is the pure quality of the rose as a single object; the abstract feelings entering into the combination are its qualitative as opposed to its quantitative constituents.

The whole concrete and really existing rose, then, comprises three things, (1) certain specific feelings which are its qualitative constituents, (2) certain properties (to which I shall presently return) which are its quantitative constituents, and (3) the fact that certain constituents belonging to these two classes are combined in a particular way for a particular time, which is the fact of its real existence as the object which it is. Not one of these three things can be left out of the account in considering what we mean by the rose, as a real existent. But it is also evident that there is a special difference between the qualitative and quantitative constituents, taken together, and the third, which I will call the existential constituent; a difference which does not come in between the qualitative and quantitative constituents. These two last-named classes of constituents belong to the *whatness* of things, the rose for instance, and contribute to compose it as what we know it for, or as what it is for consciousness alone; the third or existential constituent, which is the fact of the combination of the other constituents, has no specific content or *whatness* of its own, but is in consciousness the fact upon which (occurring of course constantly and in innumerable instances) we build or infer the notion of Power,—whether it be Power in anything to exist itself, or Power to make other things exist,—the Power which is in fact synonymous with Real and Effective Existence, or Existence in the fullest sense of the term.

It is in connection with this third constituent of real and concrete

objects that the puzzles arise, attaching to what are called Things-in-themselves, with which, however, we need not now trouble ourselves. I go on, therefore, to the second class of constituents, those which are quantitative, in virtue of which both objects themselves and their qualitative constituents, or constituents of the first class, are capable of quantification, or which are the source of our having the perception, or the idea, of quantity at all. You will no doubt have already anticipated what I mean. There are two constituents belonging to this class; one is found in all contents of consciousness without exception, namely, time-duration; the other is found only in contents of certain kinds, but those of very great importance; it is spatial extension, as in seeing a luminous expansion, or touching a resisting surface. No feeling belonging to the first or qualitative group of constituents, and consequently no object in which any such feeling is a constituent, is ever experienced, or is ever present in consciousness, uncombined with one or with both of these quantitative constituents. In every content of consciousness a constituent of each kind must be contained, and that in inseparable union, or union such that its dissolution would involve the disappearance of the content from consciousness altogether.

When I look for instance at the petal of a rose, I see a pink expanse, of a certain size and shape, that is, I have a specific sensation, pink light, occupying that expanse; the sensation and the expanse together constituting one single content of consciousness, which vanishes when either the expanse occupied by the sensation is reduced to a mathematical point, or the sensation occupying the expanse is reduced to zero in intensity of feeling, or the time-duration occupied by both together is shortened to *nil*.

What we have, then, in the last resort, in the simplest possible cases of experience, is always some time-duration, or some time-duration and spatial extension, occupied by some specific feeling. I mean that this is the irreducible minimum of what must be in consciousness as a single object, supposing that object to be already selected and isolated, by abstraction, for analysis. I do not of course mean, that we ever have, or can possibly have, objects brought before us actually in any such isolation. The rose-petal for instance cannot be perceived without its context or background; and that both in point of spatial surroundings, and in point of what precedes, accompanies, and follows it, in time. The fact of which it is all-important to be distinctly aware is, that feeling always occupies some time-duration, or some time-duration and spatial extension together; that this occupation of what I will call *the formal element* by feeling is essential to consciousness; and that consequently the whole of consciousness is a web or contexture of portions, simultaneous or

successive, each of which is analysable into distinguishable but inseparable constituents of these two kinds.

This brings me to the point which directly bears upon our question of this evening. I fear you will think I have been rather long in coming to it. But the proof of my theorem depends on showing, that the analysis on which it rests is exhaustive of the phenomena which it relates to. The point is this :—The two constituents of the second or formal kind, I mean time-duration and spatial extension, which are the things occupied by feelings, or constituents of the first or material kind, are that to which quantification attaches, that which alone is immediately and essentially capable of quantification, and therefore that which is the original source of our idea and knowledge of quantity altogether. For be it noted, that it is differences between the feelings which occupy time-duration and spatial extension, which alone are necessary, and alone sufficient, to distinguish them into portions which, being measurable relatively to one another, we call *quanta* or quantities : and farther, that these differences do not, by themselves alone, occupy any duration or extension.

Feeling is quantifiable indirectly, in virtue of its occupying time, or time and space together. Existence or Power is indirectly quantifiable also, for the same reason. But the source of our idea or knowledge of quantity, that is, of how much or how little there is of anything, can only be found in that which is itself measurable ; or, that alone which is measurable is immediately and originally quantifiable. Now this attribute attaches ultimately to the time and space constituents of experience, and to them alone. Time and space, therefore, are those entities, substances, or things, of which we are in search, the essential quality of which (in the large sense of the term *quality*) is to be quantifiable, or to have quantity as their immediately inherent attribute. It is, therefore, to time and space alone that ultimately, or in the last resort, Infinity must attach, if it exists at all, inasmuch as it is only in relation to quantity that it can be in any way intelligible as an object of thought.

III.

It is the analytical method applied to consciousness which leads me to these results. I am aware that they are not generally accepted. In particular it is held by many minds of great ability, that differences in intensity of feeling suffice to give us immediately the perception of quantity, a feeling of great intensity being felt as a greater quantity of feeling than one of less intensity, especially if both are of the same kind. And appearances are certainly in favour of this view, so long as we suppose ourselves to experience feelings

of widely different intensities in succession, with our own notions of quantity and of degree already fully formed, and making a familiar part of our mental furniture. For then the ideas of quantity and degree are almost instantaneously evoked (in virtue of associative processes) by the sensations experienced, and these sensations are almost instantaneously classified by reference to those ideas, without the apparent link of any intermediary perception or idea. Accepting these appearances, then, as the truth, we readily acquiesce in taking quantity, quality, and perhaps other similarly general ideas, as what it is customary with a certain school of thought to call Categories, the application of which to phenomena, but not the community of nature which renders them applicable, is alone likely to repay investigation.

The question, however, assumes a very different aspect, so soon as we begin to analyse experience without making the supposition, that we are already familiar with ideas of the same degree of generality as those in question. We then have to consider, not what experiences are sufficient to suggest to us at present the conception of quantity, but what experiences are at once necessary and sufficient to give rise to or compose that conception in the first instance. Looking at the question in this way, it seems to me evident, that experiences of what we now call different intensities of feeling would not alone suffice to give rise to that conception, inasmuch as they would not of themselves, that is, as differences in feeling alone, be distinguished, as a class, from differences which we now class as differences of specific kind. Differences of both classes would alike be perceived as cases of dissimilarity in feelings; but as differences in feeling alone, they would not seem to belong to two contrasted modes of dissimilarity, and consequently would not give rise to any perception of quantity, or of there being any differences of feeling which were differences in respect of quantity.

To account for this perception we must, as it seems to me, have recourse to the other, the formal, element in concrete feelings. Some measurement, however rough,—that is, some comparison of time-durations and spatial extensions occupied by feelings,—is indispensable as an antecedent condition of the perception of quantity. According to this view, the first perception of quantity in feelings would be a perception of the quantity of time, or space, or both, which they occupy. But this perception, when once attained, enables us to distinguish feelings differing in intensity from feelings differing in specific quality, by supplying us with the perception of equal times or equal spaces, to which both kinds of differences may be referred. All feelings being thus perceived as quantities, we can then make this perception the basis of their further consideration

and discrimination; and then all further differences in them, which are not perceived as differences of specific kind, would be set down as belonging to the feelings themselves considered simply as concretes, or *quanta* of feeling. These differences would be those of intensity, and the times or spaces occupied by feelings differing in intensity would then naturally be thought of as containing different intensities or different quantities of feeling.

The idea that, in feeling, greater or less intensity means greater or less quantity of feeling, involves the idea, that portions of time or of space, which are quantities, may be more or less filled or saturated by the feeling which occupies them; and this idea can only be reached by way of a perceptual discrimination of the pure element of feeling from the concrete feeling in which it is an element, and which is quantifiable in virtue of the other, or formal, element which it contains. It is in this way that we really obtain the idea of degrees, or measurable quantities, of feeling in point of intensity, though the steps by which it has been obtained are obliterated by the very frequency of the associative processes in which they are taken. Still this idea when obtained, though perfectly legitimate, does not enable us to measure the intensity of feeling otherwise than approximately, and with a large admixture of non-verifiable conjecture, however carefully we may select our units. For in the first place we can never actually separate a feeling from the time or space which it occupies, and in the second place, it is only the time and the space which it occupies which are the measurable element in the whole. Different degrees of intensity are in strictness no more subject to quantification and measure, than are specific differences of quality. The analogy between the degree, intensity, or quantity of feeling, in subjective analysis, and the quantity of matter, or mass, and perhaps I may add the quantity of motion, or velocity, in physics, is very striking, when we approach the subject analytically.

IV.

Returning once more to the main question of this evening, the conception of infinity, the foregoing remarks will, I hope, have made it evident, that time and space, as they appear in actual consciousness or experience, that is to say, as inseparable elements of it, are the only immediate subjects of quantitative determinations, and consequently, if an intelligible meaning can be attached to the term, of Infinity. To consider and if possible ascertain this meaning, and consequently the nature of time and space in respect of infinity, is our next task. It is another and a further question, to what other things the attribute of infinity may be found to attach, in virtue of their

connection with time and space, and what views of the Sum of Things are imposed upon us in consequence of the relations so disclosed.

Now we have just seen that, though the formal constituents of experience which are immediate subjects of quantification are two, time and space, from which we must expect to find the modes of infinity two also,—which is in fact the case, the infinity of time being called by the special name of eternity,—yet the mode in which the divisions are introduced, which mark them off into *quanta*, is single and the same in both. Any sensible difference or change, in the feeling or feelings which are their content, gives rise or may give rise to such a quantifying division. We have already had instances in the rose and in the rose-petal. The outline of both consists in the sensations being different which lie here and there, on this side and on that, or which are so disposed in space as to give the appearance, of a demarcating line. Again in time, if the rose or the petal is removed from view, something else, no matter what, occupies the space which was theirs before, and the moment of this change is marked by nothing else but a difference of sensation between the group which quits and the group which enters the context of consciousness.

The real external world is, we know, not exactly composed of roses or rose-petals. Still it is composed of objects which, in respect of their most general relations to consciousness, are subject to exactly the same conditions as those which roses and rose-petals have just served to illustrate. No single object either of external or internal experience, so called, either of physical or mental life, can be named, which is an exception to these general laws or conditions. Our knowledge of all alike consists of feelings and changes of feeling, groups of feelings and changes in and between groups, the one more or less permanent or transitory, the other more or less rapid or gradual, composing together a vast contexture or panorama in time and space together, which but for the feelings we should not be aware of at all, and but for the differences or changes in feeling we should not be aware of as a continuum capable of discreteness or quantification. It is out of what I have described as a contexture or panorama of experience that our ordinary and familiar conception of the world has been formed, I mean that conception of it in which it appears to consist of a congeries of real objects, separate from one another in space, and either sequent or simultaneous in time, organic and inorganic, conscious and unconscious, governed in their actions internal and external by forces of physical and forces of psychical or spiritual nature.

Both views of the world alike, I mean both the familiar concep-

tion of it as a congeries of discrete real objects, or things and persons, governed by forces physical and psychical, and the view which, as I contend, has been as it were the matrix out of which that familiar conception was formed, or through which it passed as a necessary stage in the process of its formation,—both views alike are formed in obedience to psychological laws, and pre-suppose powers and endowments on the part of those conscious beings which, under the name of Subjects, are the special object-matter of psychology. Thus without sensitivity on the part of Subjects, there would be no feelings as the material, no time and space as the formal, elements of experience; without memory no contexture of experience; without attention and thought no comparison or other moulding of the data of experience. I mention this, that you may not tacitly accuse me of overlooking it. But it is not with this order of facts that we have now to do. That conscious beings as the Subjects of experience are not only realities, but are necessary as real conditions of experience existing, mankind has long held to be an established truth. The real nature of Subjects is the main question now at last being approached in earnest by modern psychology. But this, and all the facts and circumstances into which this brief statement of it might be drawn out in detail, are of no effect whatever to alter the simple philosophical truth, that Subjects and their powers are known of, ultimately and in the first instance, only as part and parcel of that contexture or panorama of consciousness or experience, the analysis of which in its essentials has been given above. This panorama of consciousness is the first and original thing in knowledge, and therefore its analysis the first and essential step to be taken in philosophy, when once philosophy has become aware of its own nature and purposes. The distinction between Subject and Object, the knowledge that they or either of them are realities, and consequently any further knowledge of what they and their powers are,—all this both pre-supposes some analysis at any rate of the panorama simply as such, and also is powerless to overturn results which accrue from careful and repeated analysis of the panorama, when made simply with the view of determining its invariable constituents and the mode of their combination.

Looking, then, at the panorama with respect to its quantification, and more particularly with a view to those quantitative determinations, if any, which have been called infinity in space and eternity in time, what do we find that bears on this question? I take both modes of infinity together, because the facts are very simple and exactly alike in both cases. Look at the panorama where we will, we always find that the divisions marked in it by differences between feelings, or between feeling and absence of feeling, are always

divisions which fall within space or time, never beyond them; that is to say, are limits beyond which there are space and time again, whether this space or time beyond the limit is or is not occupied by a specific feeling or content. The same is true whether we follow the order of increase in adding space to space, and time to time, or the order of decrease in subtracting space from space, and time from time. Wherever we perceive or imagine a limit to or in space or time, there we cannot but perceive or imagine it as having space or time, however great or however small, on both sides of it, and not on one only. In other words, space and time in their entirety are wholly limitless and inexhaustible. Whatever lies wholly within limits we call finite, and this is true of all definitely imaginable portions of time and space; but it is not true of time and space in their entirety, for in this, when taken in order of increase, they exceed all imaginable limits, and in this respect, therefore, *necessarily infinite* is the only term which expresses their nature.

Their infinity or inexhaustibility in order of decrease, by subtraction or by division, rests on precisely the same fact as their infinity in order of increase, namely, on the fact that all limits of them are divisions within them, not boundaries beyond them. But this is not what is commonly meant by their infinity, when the term is used without restriction of its generality; the reason being, that, in speaking of infinity in order of decrease, that is, of infinite divisibility, we begin by taking some finite portion of time or of space, into which our divisions are supposed to be introduced, so that we are really speaking of them in detail and not in their entirety. Certain facts, however, and those essential facts, result with equal clearness from either mode of consideration, namely, first, that no portion of time or of space can be abolished in perception or imagination, and secondly, that divisions or limits of time or of space do not of themselves occupy any portion of them, however minute, but are divisions having position or location only.

V.

We thus find that there is a real and intelligible meaning expressed by the terms *infinity* and *eternity*, and indeed that they are terms which certain facts of experience, universally met with, render indispensable. In the next place it is important to remark that these facts, which are the meaning of the terms, are facts of perception, existing independently not only of any will of ours calling them into being, but also of any modification introduced by our thought, or voluntary attention paid so as to compare and form judgments concerning them. We observe them alike in the minima and in the maxima of perception,

as already involved in them, prior to attention being paid to those percepts with the purpose of knowing more about them, or of answering the question *what they are*, or *why*, or *how they come to be* as we perceive them. It is true that we also find these same facts in the phenomena of our own conscious action and conscious thought. But in these again they are involved and perceived to be involved in precisely the same way, that is to say, as independent of any volition of ours to put them there, or of any thought of ours making them what they are.

What thought does with them is to make them objects of conception, out of, and as well as, objects of perception. Thought does with them what I have done over again with them to-night, that is, moulds and modifies them into conceptual form, by attention paid for the purpose of knowing more about them, and bringing them into line, or into some sort of harmony, with other facts already known or supposed to be so. The facts thenceforward have two modes or forms of existing for consciousness, the perceptual and the conceptual. In both they are objects of consciousness, and besides this their perceptual is the object of their conceptual form, in the sense that it is both that which we endeavour to understand by conceptual thought, and that by which the correctness of our conceptual thought must in the last resort be tested and verified, as it is also that out of which in the first instance it originates, and to a completer and more complex state of which it naturally and necessarily leads. Thought, which is a conceptual and reasoning process, starts from knowledge in perceptual form, and leads to knowledge in perceptual form, being itself the intermediary process of comparing, sifting, or in one word organising it.

The conception of infinity and infinity as the object of a conception are, therefore, in a very intelligible sense, one and the same thing looked at on different sides, though it makes a great difference which side we take as ultimate, or as the basis of the other. On one side there is the single thought or definition, on the other the perceptual facts which it gathers up into that single conspectus, and which are the justification of its truth, the meaning which it briefly expresses. I think we must say, in accordance with the foregoing examination of facts, that *the illimitability of time and space in their entirety* is the conception of infinity. That is the brief mental formula which sums up the perceptual facts constituting infinity as a reality, and enables us in processes of reasoning, where "brevity is the soul of wit," to contrast phenomena in which they appear with phenomena in which they do not appear, or with phenomena so taken as to exclude them, that is, with their logical opposite *the finite*, in all its various modes and manifestations.

Conceptions, you see, are man-made entities in contrast to perceptions independent of conceptual thought. The formation of conceptions out of perceptions, by attention and comparison for the purpose of further knowledge, is the way in which human thought is constrained to work. We think, first by forming general terms by comparison of perceptions, and then by comparing the general terms, which we have so formed, one with another. Hence the extreme facility with which we are led to take general terms as true expressions of fact, merely because they are familiar, and the extreme importance of seeing whether or not they truly and actually correspond to the facts which we suppose them to express. Many people, for instance, might be disposed to maintain that the term *illimitability* alone, in the above definition, was sufficient as an explanation of infinity, being its synonym, and the meaning of both terms being immediately self-evident from the familiarity of the circumstance combined with the etymology of the word, without requiring any reference to the kind of facts in which alone the circumstance either of finity or infinity, of limitability or illimitability, can be perceived. Whereas the truth is, that they require, as their antecedent or at least as their concurrent condition, the perception of time or of time and space together. As single things or entities capable of independent existence, as *e.g.*, *The Finite*, or *The Infinite*, they have no legitimacy, because they have no intelligibility.

Yet the fallacy, in virtue of which they seem legitimate and intelligible, is almost forced upon us by the way just described, in which we are compelled by our nature to advance in knowledge, I mean the way of conceptual thought. Every conception or general term, whether simple, such as *colour*, *hard*, *high*, or complex, such as *stone*, *man*, *world*, seems in consequence of the unavoidable universality of this process to be a single finite item, in logical relation with countless others of the same conceptual kind, conceptions and relations which together compose a vast hierarchy of thought, beginning from the widest and most abstract conception, say *being*, and ending with a vast number of the most minute and complex, say *hypnotism*, *chlorophyll*, *Raphaelesque style of painting*, &c., &c., &c.;—a hierarchy of thought, having its reason in itself, and existing or capable of existing independently of perceptual facts, which are but the appearances in and by which that reason, and those logical relations, are manifested to the apprehension of finite and sentient beings like ourselves, whose sentient powers are themselves but the appearances of a special grouping of a certain number of these conceptions.

Every conception, I repeat, whether simple or complex, is finite in its character of being a single item in this conceptual or logical hierarchy, whatever its content or meaning may be, even if its

meaning is infinity or universality itself. Now the conception of infinity, as we have already seen, is our gathering up of the facts constituting our perception of infinity into a single conspectus. That is to say, the whole of the facts constituting our perception of infinity is contained within the limits of our conception of infinity, and whatever is wholly contained within limits we are accustomed to think of as finite, although this term is strictly (and not merely metaphorically) applicable, only when the limits intended are limits in time or space, or their derivatives, perceptually taken. If, then, we take the conception of infinity for the perceptual facts which are the object of the conception,—if we substitute the conception for the facts,—we thereby render infinity finite in our thought, and vainly imagine that we thereby have the infinite Universe within our intellectual grasp. The true function of conception is to express, not to contradict, the perceptual facts to which it relates, and on which it is founded. Both the fallacy of confusing conceptions with their objects, and the fallacy of the consequence to which it leads in the case of infinity, will now, I hope, be sufficiently evident.

One effect of our being constrained to think and speak and reason by way of conception will have been already visible in the foregoing argument. I mean in the description and definition of infinity, where I had to speak of time and space *in their entirety*. This phrase seems of itself to imply that we can perceive them as finite, since every entirety, or the whole of anything, involves or seems to involve its having boundaries by means of which we recognise its completeness. But we can now see the source to which this appearance of limitation in time and space must be referred, conflicting as it does with the perceptual facts which show that no limitation of them is really possible. It arises from the conceptual or thinking process which, in application to anything whatever, moves by means of limitation, and is not possible without it. In modifying any perception whatever into a conception we limit it in thought. It is only as so limited that it can be in thought at all. But it is clear that limitations so arising are not to be ascribed to the facts or things thought of, without special and independent evidence showing that they belong to the facts, as well as to the process by which we conceive and compare them. The absence of such evidence in the case of time and space was precisely that which my argument in the earlier part of my Address was directed to show.

VI.

But now observe, in conclusion, what totally different views of the Universe are involved, according as we take the perceptual facts con-

stituting infinity as a disclosure, so far as they go, of its true nature, or instead of them adopt the conception of infinity as a correspondingly true disclosure. If we take the latter course, two consequences follow. The first is, that we must regard the Universe, in respect of its infinity, as within the grasp of human intelligence, because on this supposition *infinity* has no other meaning than what our conception gives it, and no longer points to the existence of facts which exceed our power to grasp. I mean that, unless the term expresses perceptual facts, it is reduced to that finiteness which it has as a conception, that is, as one item of thought among others, and limited by others, in the logical hierarchy. And this position, seeing that the term is then emptied of all but its etymological meaning, is to me wholly unintelligible as philosophy.

The second consequence is, that the conception of infinity apart from its perceptual content, (and this is true of every perception similarly taken), can be regarded as a reality only by considering it as the conception of a conceiver or conscious Subject, or as containing the powers of what we commonly call conscious Subjects within itself, as a thought and the thinking agency in one. In this case the result clearly is, that we must conceive the logical hierarchy of conceptions, that is, the Universe, not only as finite, but as a finite Person, that is, as the central organising agency in some hierarchy of logical conceptions, and moreover as a Person or conscious agency, the whole of whose knowledge is *a priori*. This position either identifies the human with the universal Subject, or conceives the universal Subject as a magnified repetition of the human; neither of which results can be regarded as a satisfactory philosophical conclusion, since, to say nothing of the new difficulties which they raise, neither of them throws the smallest light on any philosophical problem.

Next, then, let us suppose the former alternative adopted, and see what follows from that view of infinity which I have endeavoured to lay before you this evening, infinity as depending on perceptual facts. Since on this view the Universe is known to us only as existing in time and space, and these are known to us as extending beyond any boundary which we can conceive or imagine; and since moreover time and space are known to us, each in its kind and province, as inseparable co-elements of existing things; it follows that we must conceive existence as extending commensurably with time and space, beyond the boundaries of existence as positively known or imaginable by us. For in the infinity of time and space is involved their existence beyond the limits of any content positively known to us, and in their existence is involved that of some co-element or other, though not positively known to us, seeing that it is only as a co-element that we know them. You see how important are the two

facts, disclosed only by analysis, first the illimitability of the formal element in consciousness, secondly its inseparability from its material co-element.

Now our positively known or knowable world is a world of Matter, and all the forces which we positively know of as operative in this world are physical forces; I mean, when estimated by scientific analysis, and not by the results in consciousness to which they give rise. But since Matter, including the forces operative in it, is a highly complex existent, and one which in conscious beings inevitably raises the questions *whence* and *how* and *why* it comes to exist as we know it, while at the same time it furnishes no sort of answer to these questions from within itself, that is, cannot be regarded as *Causa Sui*, the conclusion is forced upon us, that there are what we loosely call causes, more properly real conditions, which make it what it is, and that these causes or real conditions lie somewhere within that unlimited domain of existence which is commensurable with time and space, but are beyond any means which we possess of positively conceiving or imagining.

The Universe is thus necessarily conceived by us as infinite, and in this respect wholly beyond any speculative or positive conception which we can form of its real nature as a whole, while at the same time the very facts which compel this view of it involve the recognition that it is, if I may so speak, *of a piece* throughout; the unseen parts being, as it were, cut off from our knowledge by defect in our means of knowing them, but being nevertheless in continuous contexture with the seen parts, and the fact of their existence being therefore speculatively certain. We may well conceive that there are modes of existence which are not material, nor perceivable by us through any kind of feeling of ours, existing both within and beyond the limits of the material world in space, and during, as well as both before and after, the existence of the material world in time. For it would be wholly unreasonable to suppose, that the set of feelings, whether of sense or emotion, whether bodily or mental, which are constituents of human experience, are the only feelings possible, and the consciousness which they contribute to compose the only kind of consciousness which has real existence.

Here, however, it will perhaps be said: "*De non apparentibus et de non existentibus eadem est ratio*. An unseen world, or a Universe, of which we can form no positive conception whatever, is for us as if it were non-existent. Our only business with it is to leave the idea of it alone." To this I reply,—Not so. If we were purely intellectual or speculative beings, there might be something in this contention, though even then the fact that an infinite and unseen world exists would have to be registered and kept in memory. But we are

practical as well as speculative beings, and it is possible that from our own nature as practical beings we may draw some indication of the nature of the unseen world, seeing that, merely as part of the material world, we stand in relation to the unseen, and some community of nature between us and the unseen must therefore of necessity exist.

The material world in all its parts, including the forces operative in them, stands in contact and contexture with the unseen; its being conditioned by it on the one hand involves its conditioning it again on the other. The unseen world would not be the same without, as it is with, the existence of the material world, which is the portion of it seen by human beings. Now this re-action, if I may so call it, of the seen on the unseen, becomes apparent, or is brought into notice, when we consider the highest known kind of physical action, highest, I mean, both in point of complexity of the physical substance displaying it, and in point of the consciousness which immediately depends upon it. The action which I mean is our own action as practical beings. It is that cerebral action accompanied with consciousness, which is known as self-determination in the light of conscience. This action is known to us by the consciousness which immediately accompanies and depends upon it, namely, by a discrimination between a better and a worse in alternative courses represented as equally possible to it, and by a consciousness of adopting one of them in preference to the others.

Now, in complex actions of this kind, those are felt as right, or as in harmony with themselves, in which the alternative actually chosen is the alternative perceived as best, irrespective of the attaining or non-attaining of the end proposed by the action chosen. Obeying conscience is the ordinary name for actions in which this rightness or harmony is felt; but the fact in which the rightness or harmony consists is the right or harmonious functioning of the group of cerebral organs immediately concerned. I make this remark in order to show, that the phenomena of which I am about to speak are rooted in laws and forces of physical nature which are fundamental, and indeed essential to the normal course of development of living beings; physical forces being the agency by which all the work of the world, its mental work included, is done.

Now it is well known, that those who live in the habitual practice of obedience to conscience, or the moral law, regard obedience to it as in itself an end of far higher value and importance than the attainment of any other end or purpose whatever, and, moreover, as an end which is attained in and by the performance of the act itself. They regard an act of obedience to conscience as one which cannot be defeated or frustrated, that is, deprived of its success, triumph, or

reward, no matter what its immediate or remote consequences may be, either to the agent himself or to others. One and the same act, if it is an act of obedience to conscience, may be accompanied with fear, sorrow, shame, suffering, and death, to the doer of it, and at the same time be in itself an act which crowns him with glory and honour.

But this double estimate of acts of obedience to conscience,—one by their actual or calculable consequences, the other by their intrinsic nature,—cannot be made so long as the latter estimate, by their intrinsic nature, is accounted valid, without referring them, that is referring each act singly, to two worlds, the seen and the unseen, and, in a case like that just supposed, referring its failure and ignominy to the seen, its success and triumph to the unseen. The belief in an unseen world, in which actions are not only estimated by a moral standard, but in which the moral law is the law of nature which actually rules, is therefore somehow or other closely bound up with the practice of obedience to the moral law in the seen world, in which it is militant only, that is, stands in frequent antagonism to the forces of nature whose rule is actual. The belief in an unseen world conceived in this way, conceived, that is, as a world in which power and moral goodness are combined, since it is incapable of verification in the seen world, is a state of mind which we call Faith as distinguished from Knowledge, and is in fact that state of mind which is the parent of Religion in the strict and proper sense of the term. When, constrained by human needs and confined by human limitations, we personify that union of power and moral goodness, the perfect manifestation of which we refer to the world unseen, that union of power and moral goodness, which is the real object of our faith, we call by the name of God.

It is in this way, namely, by religious faith springing from obedience to conscience, and therefore belonging to that part of our nature which Kant called the Practical Reason, that we obtain the only insight of which we are capable into the nature and character of that unseen world, the bare existence of which, as conditioning and surrounding the seen world, we have speculative grounds for affirming. No speculative conception, therefore, of the Universe in its entirety is possible to us. At least this follows from the view which I have taken in this Address of the nature of our conception of infinity. The ideal end of philosophy is not a complete knowledge of the Universe simply, but the most complete knowledge of it which may prove to be attainable by human powers. It may well be the case, that this should include a knowledge of how and why it is, that a complete knowledge of it is unattainable.

For that alone is true philosophy, which is based on strict attention to the facts of experience, irrespective of the conclusions to which they may seem likely or unlikely to lead,—irrespective, therefore, of any anticipation concerning the completeness of the knowledge which philosophy on that basis may be able to attain.

THE CONCEPTION OF NECESSITY AS APPLIED TO NATURE AND TO MAN.

By D. G. RITCHIE, M.A.

IN the second book of his *Logic*, chap. v, § 1, John Stuart Mill says, "When it is affirmed that the conclusions of geometry are necessary truths, the necessity consists in reality only in this, that they correctly follow from the suppositions from which they are deduced." Thus Mill maintains (1) that there is no necessity except the necessity of logical inference—his discussion of "Liberty and Necessity" as applied to the phenomena of human conduct brings this out very clearly (*Logic*, Book VI, chap. ii). But Mill maintains also (2) that the ultimate premises of geometrical and other mathematical deductions are not different in kind from other scientific propositions: their apparently greater certainty depends only on their more hypothetical character.

Now these two opinions of Mill's are often criticised as if their acceptance was fatal to any theory of knowledge, except an empirical theory erected on the basis of Hume's scepticism—the theory which Mill himself adopts. It seems to me, however, that both opinions may be accepted as expressing neglected truths, whose full significance Mill himself failed to recognise owing to the influence of the traditional empiricism which he had inherited.

The only necessity, he says in effect, is the necessity of logical inference. But Mill himself destroys the necessity of logical inference by representing all inference as ultimately inference from particular to particular, *i.e.*, by attempting to get rid of the element of continuity or identity, which alone makes inference possible—an attempt which is perfectly in accordance with his view of "likeness" and "unlikeness" as ultimate categories incapable of further analysis (*Logic*, Book I, chap. iii, § 11), but is exposed to exactly the same logical difficulties. As Mr. Bosanquet has pointed out,* when

* Essay on "A True Theory of Identity," in *Essays and Addresses*, p. 167.

Mill is criticising Mr. Spencer's still more atomistic theory, which resolves the identity of the middle term into the mere *likeness* of two terms. Mill sees that the common element in things that are compared "must be conceived as one";* but this does not prevent him, in the following chapter, asserting his own theory that all inference is ultimately from particulars to particulars. This theory seems to rest on one of those confusions between psychology and logic which are perhaps the most fruitful source of difficulties in the latter science. That we may be conscious of a particular experience, and then conscious of an anticipated or imagined particular experience without being conscious of a general proposition, is undoubtedly true as a psychological fact, but is perfectly irrelevant in logic. Mill's village matron, who prescribes for her neighbour's child "on the recollection and authority of what she accounts the similar case of her Lucy," is using the Aristotelian παράδειγμα, without being conscious, as Aristotle was, that the argument from analogy always *logically* involves a syllogism. But the business of logic is with the validity of inferences and not with the series of conscious states which form the subject-matter of psychology. The question "*Why* do you conclude thus?" will bring out the middle term and the universal proposition, true or false, on which the inference turns. If Lucy had whooping-cough and the neighbour's child has a broken leg, the remedy must be recommended as a panacea. It is only in so far as there is a conceivable identity between the two cases—only in so far as we can plausibly say, "All *such* cases should be treated in this way"—that there is any appearance even of a valid inference. However much the Aristotelian analysis of inference may need to be supplemented to make it adequate to the complexity of the various processes of thought, the fundamental principle of all inferences must be, as Aristotle saw, the recognition of an identity which enables us to connect together—συλλογιζέσθαι, *concludere*. The *Dictum de Omni*, it should be noted, as Aristotle formulates it, says nothing about "classes"—the narrow and artificial theory which has brought Aristotle's analysis into undeserved discredit.

The necessity of mathematical truth, however, is generally understood to mean more than the necessity by which conclusions follow from premises in formally correct reasoning. Mathematical reasoning starts with ultimate major premises (ἀρχαί) which are absolutely true. The truth of axioms in mathematics, like the truth of the ultimate principles of reasoning itself, is often spoken of as "intuitive" or "self-evident" or "immediate." All these phrases seem to me objectionable, because they contain misleading sug-

* *Logic*, Book II, chap. ii, § 3, *note*.

gestions. "Immediate," instead of merely meaning "not arrived at through a middle term," suggests rapidity of thought; and the other two terms suggest the same thing, as if those truths were the most certain which we got at "straight away," without any trouble or mental exertion. Now, whether this or that person or persons in general form an opinion quickly or slowly, with or without trouble, is a matter of purely psychological interest and quite irrelevant in logic. Axioms can only be called "incapable of proof" in the sense that in the particular science to which they belong they cannot be derived from more general principles than themselves. In another sense they may be proved, and require proof—viz., the proof *per impossibile*—under which must be included what Kant called by the unfortunate name of "transcendental proof." The validity of this kind of proof depends on the principle of contradiction—the ultimate principle of all reasoning, the only proof of which is that, if it be taken away, all possibility of knowledge is at an end. With the consistent "sceptic" it is impossible to argue; the only argument available against the sceptic is that his scepticism is certain to become dogmatism at some point, so that the consistent sceptic is himself an impossibility. The principle of contradiction, in other words the *logical* inconceivability of the opposite, is the principle according to which alone axioms can be proved. But it is not a sort of magical formula that can only be used in logic and mathematics; for it is the principle of all truth and may potentially be applied everywhere, if only we take care that the conditions for its correct application are fulfilled. Mill, as we know, rejects inconceivability of the opposite as a test, because he regards inconceivability as a psychological matter. This is another of these irrelevant intrusions of psychology into logic. The test is only valid as a logical test when the conditions under which an assertion is made are all clearly stated and realised; and that is the reason why the test can be safely applied in some matters and not in others. It is applicable safely in proportion to the abstractness of the subject-matter. The more abstract our subject-matter—provided it be clearly realised to be abstract—the more easily can we exhaustively enumerate all the conditions under which we are making an assertion. It is easy to keep our mathematical assertions abstract; but the principle of inconceivability is, in logical theory, equally applicable to any other sphere: *e.g.*, if we could keep statements in jurisprudence and political economy—both of which sciences have been pursued in this country on professedly abstract methods—severely abstract, we could apply the principle as safely as in mathematics. The danger is that in concrete subjects people will say, "This is inconceivable," when they are only entitled to say

that they, owing to their particular bias, or their particular experience, do not think it true.

To put the same thing in another way—Mill maintains the truth of mathematics to be only hypothetical; and this statement may be accepted. But it does not the least interfere with the necessity of mathematical judgments. On the contrary, every judgment, in so far as it is completely true, ought to be stated in a hypothetical form. For the convenience of ordinary social intercourse we make rough and inaccurate brief statements in an unconditional form: *e.g.*, we talk of the sun rising at such an hour, without stating that we make the assertion only on the basis of a convenient, but now obsolete, geocentric hypothesis. It would, indeed, be advisable always to distinguish between the use of “all” as expressing a merely collective judgment and its use for the necessary judgment. Instead of saying “All triangles have their angles equal to two right angles,” it would be better to say, “If and so far as this figure is a triangle in the strict sense in which triangle has been defined, its angles must be equal to two right angles.”

To sum up what has just been said—Necessary propositions are those of which the opposite is inconceivable. They are best expressed in a hypothetical form—the antecedent of the hypothetical judgment stating the conditions under which alone the consequent is asserted. The hypothetical character of our assertions is easily borne in mind in abstract matters. It is more difficult to keep in view in professedly abstract sciences which deal with concrete matters (*e.g.*, Jurisprudence and Political Economy of the “classical” English type). It is left out of sight altogether in our ordinary assertions about matters of fact—those “fossil theories” which we generally call “facts,” the only “fact” which is a mere fact, being an uninterpreted sensation or feeling.

The distinction between such assertions about matters of fact and assertions of necessary truth in mathematics was based by Aristotle on a supposed distinction between the spheres of necessary and contingent matter (*τὰ μὴ ἐνδεχόμενα ἄλλως ἔχειν* and *τὰ ἐνδεχόμενα*, &c.):* but there is no such absolute distinction. The distinction is most properly represented as one between carefully qualified judgments and those which are made roughly and without precise

* Even if it be recognised that Chance and Spontaneity (*τύχη* and *τὸ αὐτόματον*) are not positive agents, but *στερήσεις* (Cf. Mr. J. A. Stewart's *Notes on the Nic. Eth.*, I, p. 260), it is still clear that Aristotle thought of an actual objective region in which *τοῦς* and *φύσις* do not manage to act, or are frustrated. The “failure” is not to him, as in the modern scientific view of chance or contingency, a mere failure in *our* knowledge.

qualification: and practically this is what Aristotle also means. When we speak of the "contingent" or the "accidental" now-a-days, we admit, if expressly called upon to face the matter, that we are only using these phrases as a way of indicating, or concealing, our ignorance of the relations of the particular facts we are speaking of to the rest of the universe as an orderly system. We admit that everything that happens is necessarily conditioned, though we do not yet and may never be able to see the necessity of it. (This is admitted fully, for instance, by Darwinian biologists when they allow themselves to speak of "*accidental*" or "*spontaneous variations*.") But this implies that all true propositions are—ideally—necessary propositions. To complete knowledge every false proposition would be inconceivable. Truth is one and indivisible; the idea of inconsistent truths (if we are using words strictly and unambiguously) is self-contradictory. Knowledge is potentially a coherent system, though "completely unified knowledge" may always remain an ideal to us. The distinction between synthetic and analytic judgments is not properly a logical distinction: it depends on the extent of this or that individual's knowledge, *e.g.*, on the extent to which he knows the multiplication table. Advancing knowledge may alter the conditions under which we think, but does not, as Mill would seem to suggest, enable us to think contradictions: on the contrary, it is a progress from chaos to system.

It may be objected that to speak in this way is to make the necessities of our thought a criterion of the necessities of things. Well, so it is; but I do not think that that is a valid objection. Logical necessity, so far as we have really got at it, *is* physical necessity—at least it is the only necessity in things that we can know and, therefore, the only necessity in things we can intelligently speak about. If any one likes to imagine an unknown and unknowable "real" world in which $2 + 2 = 5$ and the future precedes the past, he cannot tell us anything about it except by constantly saying "five" when we say "four," and saying "future" when we say "past": and this is a rather tedious kind of game to play.

People suppose that there is a difference between logical and physical necessity, because on the one side they put mere abstract logical necessity, regarding mere logic as having to do only with the consistency of thought with itself in a fictitious abstraction from the *truth* of thought which is the proper subject-matter of logic, while on the other side they put some very concrete but rough statement about particular things or events where our knowledge is very inadequate and where consequently it seems equally possible to think this thing happening or its opposite. That A should be not A is unthinkable; but we seem easily able to think of to-morrow as being either wet or

dry or half-and-half, although we believe that to-morrow's weather depends on necessary connections in the nature of things of which our knowledge is very imperfect. And thus there seem to be necessities controlling things that are not necessities for thought. They are not seen as necessities for *our* thought; but simply because we know too little about them. If necessity in things means that they all belong to a system, a cosmos, then (as already said) to complete thought there could be no subjective contingency, since there is no objective contingency. When we speak of "laws of nature" it is recognised by all careful thinkers, that we do not mean "laws" in the sense of commands obeyed by dutiful planets and unrebelling atoms, but simply statements of how we must think things to be connected if we are to avoid mental confusion. When Wordsworth says that a sense of duty preserves the stars from wrong, we allow the phrase to pass as a fine piece of poetical fancy, which does not contain any philosophical or scientific truth, save perhaps one of which the poet was not thinking—that human morality in one aspect of it forms a part of Nature as a whole, and that the ultimate proof of moral law is this same test of cohesion. Laws of Nature in the scientific sense are not commands; they are hypothetical statements of the way in which we must think, if we are to think coherently about nature: and an alleged law of nature is put aside or superseded as soon as we get at some more coherent manner of thinking. The "must" is the "must" of logical necessity, and not the "must" of legislation.

But, it may be here objected, is it not a necessity of thought, of our kind of thought, the only thought we know about, that all we can know is in space and time? Are we then obliged to think that space and time condition the ultimate reality of things—or rather, since the word "things" properly means phenomena in space and time—the ultimate reality of the universe as a whole? In answer to this objection, let it be noted that the opinion that space and time do not condition the ultimate reality depends on the logical conclusion that space and time contain contradictions when we try to think them out. We must *think* space as infinite, we must *think* time as infinite, though of course we are unable to form a definite *picture* of indefinite extent. (Hamilton's argument about the equal inconceivability of the infinity and the finitude of space and time really turns on the ambiguity of the word "conceive," which means both "think" and "picture.") Any beginning or end of space or of time is unthinkable. But if this mere negative infinity is regarded as something contradictory in itself, then it follows that space and time cannot condition the ultimate reality. (*Cf.* Mr. Bradley, *Appearance and Reality*, pp. 35, *seq.*). I cannot discuss the point here: I only wish to show

that the argument that space and time do not condition the ultimate reality, depends on the acceptance of the principle that the necessities of thought are the necessities of the real—that logical necessities are metaphysical necessities.

The opinion that thought can be consistent with itself and yet be entirely false is only tenable, if thought be taken to mean what this or that person happens to be thinking at any particular time. This is but another instance of that confusion of psychology with logic to which I have already referred as the chief source of obscurity in the whole question I am dealing with. If I have to pay a sum of 6*s.* and I hand over a 4*s.* piece, believing it be a 5*s.* piece, and then by giving an additional shilling imagine I have paid my debt, my thinking is perfectly coherent, but on the hypothesis on which I am acting (*viz.*, that a 4*s.* piece is a 5*s.* piece) it would also be perfectly sound; whereas if, still acting on this hypothesis, I were to pay an additional 2*s.* my arithmetic would be false, because inconsistent. My calculation would only seem correct to those who did not know the hypothesis on which I was acting. An historian may form a consistent theory of some event, and if his theory fits all the known facts we are justified in accepting his account as true, until some fact is discovered inconsistent with his theory. On the other hand a theory of the event could not be regarded as "true" which was inconsistent with the facts on which it was based, although some fact afterwards discovered might make it true. Or, again, let me take the instance so often used in arguments about inconceivability—the belief in the Antipodes: those who thought of gravitation as a force acting in the direction of an absolute "down" were quite right in denying the Antipodes. It remains true still that, *if* gravitation be thought of in such a way, it would be false to think that human beings like ourselves could walk on the lower surface of the earth without falling off. With our view of gravitation it is inconceivable that human beings like ourselves should fall off the earth's surface in New Zealand, for falling away from the mass of the earth's matter would mean falling up—which is a contradiction. It may easily be seen how this impossibility of anything being true (except *per accidens*), when inconsistent with the conditions under which its truth is alleged, is connected with the casuistical question "whether it is an evil will that is at variance with an erroneous reason," a question which S. Thomas Aquinas answers in the affirmative, as every wise moralist would (*Summa*, 1*a* 2*ae.*, Qu. 19, Art. 5). When the question is asked as a question of logic whether consistent thinking can be false or inconsistent thinking true, we must answer "No—except *per accidens*, *i.e.*, when we put different stages of knowledge alongside of one another, *e.g.*, when we judge a conclusion

formed under the ancient theory of gravitation as if it had been formed under the Newtonian." To take into account, however, the extent to which particular persons are conscious of the principles of their thinking or of the conditions under which they assert as if they were unconditional what are really conditional propositions, is to treat the subject not logically but psychologically or historically.

The growth of the sciences makes our physical world different from the physical world of the Greeks or of the 13th century: and it is inaccurate to decide on the truth or falsehood of propositions till we know within which "world" they are asserted. To say that the truth or falsehood depends entirely on the "correspondence" of thoughts with objective facts is only to escape the question by recourse to a metaphor. It is to assume two parallel worlds of thought and things—the seemingly convenient assumption constantly made in ordinary language: an assumption which breaks down the moment we begin to analyse the conception of "things," and discover that things are "mental constructs." It is an assumption which, under the figure of "parallelism," seeks to escape the recognition of identity—of some sort. If it is suggested that the world of phenomena, which we manage to understand to some extent on the assumption that it possesses a coherence that can be tested by our thought, may, after all, be only a delusion, a big juggling performance by which we are deceived—the suggestion cannot be intelligently discussed, for we could only know our whole world to be a delusion from the point of view of some other universe of which it was only a part that we had mistaken for the whole. This is a kind of error, indeed, that we are constantly making; but to reject our test of "coherence under carefully stated conditions" is to reject the only test we have of truth and falsehood. If our whole knowable world is a delusion, we never can *know* it to be such.

Instead, however, of attempting in a short space to discuss the whole question of knowledge and reality, let me rather take one special matter which has a most obvious bearing on the question of logical and physical necessity. Are not physical causes, it may be asked, distinct from logical reasons? In ordinary use it seems very easy to distinguish the question, "Why is . . . ?" from the question, "Why do you think so?" But, it must be observed, the question, "Why is . . . ?" applies to cases where the term "cause," in its modern sense (as distinct from the Greek *αἰτία*), would not generally be applied, *e.g.*, in geometry: "Why are the angles of a triangle equal to two right angles?" The answer to this would be called "the reason why." But there is no absolute

difference between such a question and such an answer and the similar question and answer in physics: "Why does an apple fall to the ground?" The answer in the former case was "triangularity, as such," now it is "gravitation." In both alike we refer the particular fact (relatively particular) to a general principle, *i.e.*, we see a part as the part of a whole or system. The difference is only a difference in the degree of abstractness. The geometrical conception of triangularity is more abstract than the physical conception of gravitation. But the question about the apple may be a question about a particular fact, a particular event in time: Why does *this* apple, here and now, fall to the ground? And the answer given to this question may be the mention of some other particular event—a gust of wind, or a stone thrown by a boy. And, since our interest may be, not in the general fact of apples loosened from the branch moving downwards instead of upwards, but in the fact of this particular apple being loosened from the branch, the answer we expect may be some such particular event, and not any general principle. If, however, we mean, as logicians have often professed to mean, by the term "cause," "all that without which an event would not happen," we must include in our answer to the question "why?" a reference to the principle of gravitation and to the physical and physiological principles involved in the separation of the fruit from the tree, &c. As a rule, however, when we ask the question specially about *this* event, as distinct from this *kind* of event, we are looking for the particular occasion which has led to our having an illustration of general laws in operation. And that is why it has seemed plausible to define causes as *antecedent* phenomena. No one can intelligibly speak of gravitation as an antecedent phenomenon any more than of triangularity as an antecedent phenomenon; in such cases, if priority is suggested at all, it is clearly logical and not temporal priority. So far as we mean by cause, some general law or principle, such as gravitation, under which we think a particular event or class of events, it may be more readily admitted that to assign a cause is to think an event in its universal aspect; but it might still be urged that, when cause means a particular event equally particular with that which it is brought forward to explain, we are clearly dealing with objective facts, and not with thought-relations. The series of particular events seems to go on quite independently of our thinking of it, and not in accordance with any necessity of our thought, but, if there is any necessity in the matter, in accordance with a necessity in the nature of things. Now, it is worth noticing that an argument of this kind for a physical necessity, different from logical necessity, is the same argument which might be used for the objective reality of contingency or chance.

And I do not see how physical necessity as distinct from logical necessity can mean anything else except contingency or chance, which, as we have already seen, are simply terms expressive of our ignorance regarding the particular matter in hand. If, and so far as we know any subject perfectly, the particular events cease to appear as accidental or contingent, and are seen as parts of a system, it is only because we are unable to see particular events in the light of the universe as a whole, that they seem to have no logical necessity in their sequence, and that we seem able to think of them as happening quite differently from the way in which they actually do happen. But the progress of knowledge is everywhere a progress from chaos to cosmos. To the beginner it may not seem absurd that 25^2 should be 626, that there should be a rectilineal triangle with the sum of its angles equal to 200° , that the same spring balance should be equally useful at the equator and at the poles, that an eclipse of the moon should be caused by the sun getting between the earth and the moon, that the *Æneid* should be an older poem than the *Iliad*, or that any of these remarkable statements about nature and history should be true, which are familiar to those who have the misfortune to read examination papers. If it seems easy to us to imagine the eruption of Vesuvius to have taken place simultaneously with the death of Julius Cæsar, to picture a chain of mountains extending from St. Petersburg to Berlin, or to fancy London, in November, basking in the sunshine of Egypt, it is only because we are, as yet, in a mental haze about a great part of what we think of. We assume that nature is a coherent system, but of that system we know very little even now.

The question, "Why do you think so?", if it differs from the question "Why is . . . ?", is not a logical but a psychological question; and the answer may differ for different individuals, and for the same individual at different stages of his mental history. I may believe a thing because I have been told it by somebody else, or because I have found it out for myself. The question, "Why does the scientific thinker think so?" would be equivalent to the question, "Why is it so?", if we meant by the scientific thinker the person who thinks truly and as he ought to think. In a great many cases the questions would not be equivalent, for most of the sciences have in most matters to be content with probabilities, though all, whether confessing it or not, aim at necessities.

When the distinction between the *ratio cognoscendi* and the *ratio essendi* is insisted on in any sense that properly concerns logic, what is in people's minds is the distinction between the process of *discovery* and the process of *proof*. The physician, e.g., in making a diagnosis,

guesses at the disease from the symptoms. The "syllogisms" of such discoveries are Aristotle's *Enthymemes* (συλλογισμοὶ ἐκ σημείων), ranging from the very slightest probabilities to practical certainty. This often misrepresented part of Aristotle's logic is what really corresponds to the inductive methods of modern text-books, so far as these deal with attempts to argue from effect to cause. From certain symptoms we say that the physician *infers* the presence of a certain disease. But in a scientific treatise describing the disease, he would proceed from cause to effect, *e.g.*, he would describe the *bacillus* and then trace the effects of its presence in the human organism. The Aristotelian "scientific syllogism" in which the middle term is the cause, is thus still the ideal of scientific method, although people may not call it a syllogism or recognise it as such. We try to discover a cause by guessing at middle terms, which are αἰτία, whether we call them "causes" or not; after we have proved our discovery, *i.e.*, when we truly know (*vere scire est per causas scire*), our *ratio cognoscendi* is the *ratio essendi*.

If it be objected that the cause is something in *rerum natura*, while the reason is always something in our minds, we must answer by referring to Hume's convincing proof that the idea of necessary connection cannot come to us from observation or experience of nature. The idea of necessary connection is a "mental construct"—to use a convenient, if barbarous, modern term.

The theory that thought is a copy or mirror of reality is certain to lead to the doubt whether knowledge is not, after all, an illusion. The theory that knowledge is thought coming to recognise itself—that the system of nature is a system of thought-relations, is the only theory that escapes this doubt. Practically we find that the test of coherence in thought enables us to predict what will happen and to correct alleged "experiences." As already said, the test can be safely applied only where we are certain of the conditions under which we are making assertions. Herodotus (IV, 41) was rash in denying that the Phœnician sailors who circumnavigated Africa had seen the sun in the north. His denial would only have been legitimate if it could be assumed that his geographical ideas were correct. We too easily forget the hypothetical nature of all universal propositions. When we speak of a process or a theory being practically sufficient though imperfect theoretically, we mean that it will do for those parts of practice which we happen to have in view. Thus for a very rough calculation we may treat the circumference of the circle as three times its diameter: for more accurate measurements we must approximate more and more to that theoretical goal which, in this case, we can never reach. Similarly, if we regard a planet's orbit as a circle, or even as a perfect ellipse. There comes

a point in our use of such rough formulæ where they break down and land us in contradictions. There cannot be anything that is practically true and theoretically false, unless in a limited and partial sense of "practical." Practical confirmation, *i.e.*, coherence with all experience possible to ourselves and others, is the only test we can have of theoretical truth. Our test of illusion is contradiction of our experience and that of other normal persons. The test of abnormality or lunacy is just this want of coherence. As is well known, the reason why a small number of sane persons can manage a large number of insane is that the insane cannot combine. If they all had coherent "delusions" their delusions would no longer be delusions. Natural selection decides that those whose experience is coherent with itself and with that of others shall succeed. If anyone raises the objection that we are possibly all deceived, as already said, argument is impossible. We cannot go outside all our experience, and say that possibly all is illusion. Our only test of truth *versus* illusion is the practical test. We may indeed imagine a higher range of experience from the point of view of which we might see beyond the limits of our experience, but this would only be a fanciful picture formed on the analogy of our experience. A higher experience, in an intelligible sense, would be one from which all that seems to us contingent would appear as necessary.

It may still be objected to what has just been said that the empiricist view of causation has been imperfectly stated—that it contains not only the denial of "necessary connection" among phenomena, but also the positive idea that we discover the *de facto* conjunctions among phenomena by simply watching what happens, and not by intruding our *thoughts* into the real succession, *i.e.*, the succession of our *sensations*. But even the most consistently empiricist of logicians recognises a distinction between the relation of cause and effect and the relation of mere succession in time. As the clock strikes one (*a*), a gust of wind sweeps through the branches (*b*), and an apple falls to the ground (*c*). Why do we consider *b* and not *a* to be the cause of *c*? The answer from the strict empiricist point of view would be that we have frequently observed *b* to be followed by *c*, but that *a* and *c* have often occurred separately. But does that represent fully the difference between the recognition of causal and of mere temporal sequence? Is not *b* the *kind* of event which we think of (rightly or wrongly) as forming part of a whole along with *c*, whereas *a* is not such an event? People who believed in astrology thought of the movements of the planets as bound up with human destiny. Those who disbelieve in astrology object to picking out the movements of the planets from the rest of the physical universe and making of the

planets and the lives of men a special little world with its own separate laws. Whenever we think of the causal relation we are either thinking of whole and part (as when we say gravitation is the cause of the fall of the apple) or of parts which belong to the same whole (as when we think of the energy of air in motion overcoming the resistance of the stalk, and so removing the cause which counteracted the attraction of the earth's mass). It will be observed that even when we speak scientifically a certain amount of primitive "Animism" survives, at least in our language: the words "energy" or "force," "resistance," "overcome," "attraction," all contain suggestions of volition, of consciously directed effort. We can only attain the "positivism" of science by eliminating from our thought, so far as we can, the "animism" which we cannot eliminate from our language. But, if we really think a causal relation and not a mere time-sequence, we must keep the notion of a totality or universality for thought, though this totality may be only relative, *i.e.*, refer only to some special part of the universe of our experience which we isolate for convenience of thinking. That it is this element of universality which differentiates the causal relation from mere succession in time may also be proved by the "Method of Concomitant Variations." In some cases we see more of causal connection than in others, and this varies according to the degree in which we can apply the conception of whole and part. Thus a bird happens to drop a seed just here, and it grows up into a tree. Why does the tree grow just here? We say it is the mere chance of the bird's having dropped the seed here, *i.e.*, we confess ourselves unable to see *this* bird's life history and *this* tree's life history as parts of a system, unless we regard them as simply illustrations of the general connection between plant and animal life, which modern biology does enable us to see. We see such *kinds* of events as parts of an intelligible system—the distribution of plants depending to a great extent on the attractiveness of their fruit to animals. On the other hand, when we consider *this* seed growing up into *this* plant, we think both the embryo and the developed organism as parts of one whole.

We cannot intelligibly speak of "causes" at all unless we mean by cause, at least, (1) that without which the event would not happen (the thing would not exist), and (2) that with which—no counteracting cause intervening—the event must happen (the thing must exist). That is to say, in the conception of causality is already included the conception of a Uniformity of Nature, or, to use more accurate language, the conception that Nature is an intelligible system and not a chaos. An intelligible system means a system that we can think coherently, and coherence in our thought is thus

our ultimate test of the "real" nature of things. So that the necessary connection of things apart from our thought, which was rejected by Hume, reappears as meaning necessary connection for and in our thought. I need hardly explain, after what has been already said, that by "our thought" I do not mean the irresponsible fancies of any individual, but normal human thought tested by coherence of our thought with that of others: and furthermore that in saying "thought" I am not excluding the test of sensation, but including it, for it is only as interpreted by thought and translated into thoughts, that sensations can have any meaning, or that my sensations can be compared with yours.

In the Sixth Book of his *Logic*, Mill's plea for "Determinism" amounts practically to the argument that the necessity which must be presupposed in human conduct if psychology and sociology are to be sciences like the sciences of nature, is only the necessity of logical connection. (In this, of course, he is only following Hume.) A clear recognition of this should rob necessitarianism of its terrors for the practical moralist. The extension of the notions of "law" and causality to human actions and human motives means only that we are entitled to assert necessary, *i.e.*, hypothetical, propositions regarding them. *If* a man's character is of such and such a kind, and *if* he is placed in such and such circumstances, he will, *if* no counteracting cause intervene, act in such and such a way. As a matter of fact, we are constantly in the habit of making such predictions about the actions of people we know: and such predictions are, on the whole, more easy to make and more certain than predictions about the weather in this country. The fact that predictions are safer about masses of men than about individuals is a fact of the same kind with those with which we are familiar in nature, *e.g.*, we may more easily be able to predict correctly that 50 per cent. of these seeds put in such and such soil will come up than that this or that seed will come up. Cæsar's assassination might have been foreseen by any one who knew sufficiently the temperament of the discontented believers in the old Republic; and the motives of Brutus and Cassius are not more incapable of scientific study than the motives of the particular mole—"the little gentleman in black velvet" of Jacobite toasts—whose particular mole-heap made William III's horse stumble. The human world is certainly not more "contingent" than the lower world of animal and plant life.

The belief that Necessitarianism means Fatalism comes from the confusion of conditional with unconditional propositions. The Necessitarian only asserts "If your character is of such a kind and if it does not alter, it will in certain circumstances lead you to murder

your father." The oracles of fate tell you that, whatever your character may be and whatever you do, you will murder your father—which means a denial that the world is a coherent intelligible system. The Fatalist, like the Indeterminist, dis-severs the conduct of sane and rational beings from their character and motives.

The recognition of necessary connection in its only valid sense, that of logical connection, in human phenomena has sometimes been opposed in another way, viz., by saying that all events—including even human actions—are caused, but that the "self" is a cause. If the self means the real concrete self which has a history in time, which inherits certain tendencies and acquires a certain character as the result of education, &c., it is perfectly true that the self is a cause, but in this there is no denial of psychological necessitarianism. But at least one champion of Free Will, Mr. Hazard, on the title-page of his treatise, maintains the thesis that "every thing that wills is a creative first cause." "Every one his own first cause" is, if one thinks it out, a system of polytheism too difficult to grasp and perfectly incompatible with the idea of the universe as *one*. An attempt to defend free will (in any sense which conflicts with necessitarianism, as just explained) of a still more extraordinary kind is the theory of Bishop Temple in his Bampton Lectures that now and then a miracle takes place, the connection is broken, and an uncaused act is performed.* This theory is obviously only a grotesque version of the fact that people often do *unexpected* things. But, as Mr. F. H. Bradley suggests, it is surely the oddest way of trying to prove that human beings are accountable to maintain that they are unaccountable.† Moral responsibility is, in truth, inconceivable, unless actions are the outcome of motives and motives of character in the same sense in which the fruit of a tree is the effect of its character—the character in its turn being the resultant of hereditary elements and elements due to environment. The difference between the tree and the man, which makes the man *morally* responsible, in a sense in which the tree is not, lies in the fact of man's consciousness and power of thinking. And it is this difference which the necessitarian is apt to neglect and so give plausibility to the illogical protest of the libertarian. Thus, the

* *The Relations between Religion and Science*, Lect. III. Dr. Temple thinks "uniformity" in human conduct proved only by an always incomplete induction, so that space is left for "free will" to come in.

† "You are 'accountable,' in short, because you are a wholly 'unaccountable' creature," *Ethical Studies*, p. 11. Dr. Temple would say "*occasionally* unaccountable" only. Man is never "free," says the determinist, in the sense of being "unaccountable." "Hardly ever," admits the theologian, less logical than Jonathan Edwards.

sociologist who transfers his conceptions uncritically from biology is apt to neglect the enormous extent to which the effects of biological heredity are modified, supplemented, or counteracted by the effects of imitation, among the higher animals as well as among men, and among men by the effects of conscious reflection. What Dr. Temple and others misinterpret as intrusions of arbitrary "will" into the region of natural law is the indisputable psychological fact of the modification of character and conduct by deliberate reflection on certain objects. The effort or will-power which is implied in such conscious modification of the stimuli which affect our motives is, however, itself not incapable of psychological and biological analysis and explanation. At least the psychologist condemns himself as unscientific who says not merely "these differences between human beings are difficult to explain," but "they cannot possibly admit of any scientific explanation." The psychologist need not deny the theological doctrine of Divine Grace, but he must not bring in a *deus ex machina* to solve his hard problems. (As I have already said, the biologist when he talks of "accidental" variations confessedly uses the term to express his ignorance—as yet.)

Psychological determinists, however, have given insufficient attention to the importance of the *idea* of freedom and the *idea* of Divine help as causes leading to the modification of conduct and character. *Within limits* it is most certainly true that, if a person can be got genuinely to believe that he can do something or will do something, e.g., break off a bad habit, he may actually escape the bondage of what seemed a fatal necessity. But to recognise the *idea* of freedom and the *idea* of Grace—whether it be Prevenient Grace or Grace of Congruity—among the causes of conduct involves no contradiction of the universality of the causal nexus, and of the logical necessity which, potentially, we can find in social as well as in natural phenomena. In speaking of "the idea of freedom" and "the idea of Divine Grace" as causes, I must not be supposed to be asserting that any mere idea by itself, apart from the sentiments and emotions it can gather round itself, is capable of directly affecting conduct. No *mere* idea can be an efficient cause.

But this power of reflection, of thinking, to enable man to turn round on mere nature, to mould it to his own wishes, and, when he sees fit, to contradict it—within limits—suggests more than a mere enlargement of the kinds of causes which the scientific sociologist must take account of. It suggests that no metaphysical theory about the universe can be satisfactory which does not seek to explain this double relation of man to nature: man is a part of nature and yet able to separate himself from it to some extent. I have tried to argue that the necessity of nature is the necessity of thought. If

the moral freedom of man—the liberation of man, that is, from *mere* natural impulse—is the outcome of thought also, does not the most reasonable hypothesis seem to be that thought is the principle of identity which binds together the difference of nature and man, of necessity and freedom—in the only intelligible sense these terms can bear?

IMPORT OF CATEGORICAL PROPOSITIONS.

By MISS E. E. C. JONES.

THE question of the Import of Propositions seems to me to be one of the most fundamental, as it is, at present, one of the most disputed, questions in Logical Science. And since the Proposition, whatever else it is, is the expression of a judgment, an examination of the general meaning of Propositions involves an examination of the general nature of judgment. I am quite unable to agree with those logicians who hold that it is a matter of choice, or convention, or logical or popular convenience, which, out of several alternative accounts of the formal import of propositions, we accept. I do not, of course, mean to deny or question either the existence of various *genera* and *species* of Propositions, each having its own differential interpretation; or the possibility and convenience of various classifications of propositions from different points of view and for different purposes; all I wish to maintain is, that taking the *most general* formula for Categoricals, affirmative or negative, namely

S is P,

S is not P,

on the one hand there is but one true analysis and interpretation of this, and on the other hand this one analysis applies to every possible case of categorical judgment—being in fact (as far as general Import is concerned) “the truth, the whole truth, and nothing but the truth.” If we have less than S is P, we have not a complete judgment; and more than a complete judgment we cannot have.

I do not, for a moment, claim that the view which I believe to be the true one is original; indeed, I should hardly venture to advocate it if I did not think it to be explicitly or implicitly held by various distinguished thinkers in the present and the past. It would, for instance, be easy to quote passages in favour of it from Mansel, Mill, De Morgan, Jevons, Dr. Venn, Mr. Bradley, and many others.* All

* Cf. my *Elements of Logic*, p. 49, *note*, and part of *note*, p. 128. Cf. also *Mind*, Oct., 1893, p. 450, &c.

that I claim to do is, to state this view as explicitly and unmistakably as possible, to emphasise it, and to apply it consistently throughout. If this is done, it seems to me that many dark places of Logic are lighted up, and many vexed questions settled; and that, as far as the General Theory goes, an extraordinary simplicity and completeness of structure is introduced into Logic.

I can, perhaps, best and most briefly explain the view in question by taking some concrete proposition of the *S is P* form. For instance, I will take the proposition—

This small fragrant wild flower is Clematis.

I should explain the formal import of this proposition as follows:—

In it I refer to a certain object, which has the characteristics of being a wild flower, small, fragrant, and called Clematis. I indicate or point out this object by the Subject-Term,—

This small fragrant wild flower—

and by *separating* the remaining characteristic, and *adding* it as Predicate to the Subject-Term, I emphasise it, at the same time that I join it to the rest of the group. That is, I assert the *Identity of Application* of Subject and Predicate, in *Diversity of Signification* (taking Signification in the widest sense, and including the names of things among their characteristics).

And it is easy to show in the case of any other kind of Categorical Proposition, that the same analysis applies. If I say—

S is P,
All R is Q,
Some Q is R,
All human beings are rational,
Some dogs are faithful,
My dog is a mastiff,
Tully is Cicero,
Courage is Valour,

in each and every case there is *Identity of Application* of the two terms, and *Diversity of Signification*. I understand the *Terms* to include the *whole* of any proposition except the copula—e.g., in *All R is Q*, I regard *All R* as Subject, and *Q* as Predicate. If *R* by itself is one of the Terms, what is to be said of *All*? And if *R* and *Q*, instead of *All R* and *Q*, are the Terms, we are here concerned with relations of *Classes*.

It seems clear that (taking *Term* in the sense which I adopt) any two Terms connected by the affirmative copula, *must* have identical application—they *must* apply to the very same thing or

group, because two terms having *different* Application would have to be connected by the negative copula; also, in order that there should be any significant assertion at all, there must be *some* difference between the terms—otherwise the so-called “Assertion” would be of the form *A is A*. Since this difference is *not* a difference of Application, it must be a difference of Signification or Characterisation—for there is nothing else for it to be. Hence an affirmative Categorical Proposition may be defined as—

A Proposition which expresses Identity of Application in Diversity of Signification.

This account seems to be necessarily true of any judgment that is expressed, or that can be expressed, in the form *S is P*. Some object having characteristics *SP*, is present to thought; it is *pointed out* as *S*, and further and emphatically determined as *P*.

It has been said that Adjectives, when used alone as Predicates, may be regarded, by grammatical ellipsis, as Categorematic—some Subject being understood. I should say that in Affirmative Categoricals the *Predicate* very obviously refers to the *Subject* of the Proposition.

In Negative Propositions, what is asserted is, not Identity but *Difference* of Application; and here there must of course be also a *Diversity* of *Signification*;—unless we are prepared to deny the Identity of Indiscernibles, we cannot say—

A is not A.

The view of some logicians (as already indicated) is, that any Categorical Proposition (with “Connotative” Terms for Subject and Predicate) may be read in either one of four ways. The four ways are as follows:—

We may, it is said, read—

- (1) Subject and Predicate both in Denotation only;
- (2) Both in Connotation only;
- (3) Subject in Denotation only, and Predicate in Connotation only;
- (4) Subject in Connotation only, and Predicate in Denotation only.

But (to take Affirmatives first)—

(1) If Subject and Predicate are both read in Denotation only, then, since (by the force of the copula) the Denotation is identical, if *everything but Denotation* is eliminated or left out of account, the proposition must be of the form

A is A.

Again (2), if both Terms are taken in Connotation only, since one

Connotation cannot be any other Connotation, the Proposition would once more be of the form—

A is A.

(3), (4) If Subject is taken in Denotation *only*, and Predicate in Connotation *only* (or *vice versa*), between *what* does the Identity hold, which is implied by the affirmative copula? A Denotation cannot be a Connotation. The very essence of Affirmative Categoricals seems to be a specific and definite kind of *Unity in Difference*.

In the case of Negative Propositions it seems, if possible, even less admissible to hold that both terms can be taken in Denotation only. Some diversity of Signification in Subject and Predicate is rendered indispensable by the negative copula; if not, we have a proposition of the form *A is not A*—a contradiction in terms.

It is, perhaps, not necessary to examine the other alternatives separately, for the case of negative propositions; interpretations which are quite inadmissible in the case of affirmatives, cannot (*mutatis mutandis*) be applied in the case of negatives; for what is denied by negatives must be what is asserted by affirmatives.

The view that the propositions *A* and *E* ought to be interpreted differently from *I* and *O*, seems to me to be excluded by the acceptance of *S is P* and *S is not P* as general expressions for all categoricalals; but it is, I suppose, possible to withhold this acceptance (as, for instance, Dr. Hillebrand in his exposition of Brentano's view, and Dr. Venn and some other English and American logicians seem inclined to do).

According to Dr. Venn,

All R is Q	means	There is no Rq = (Rq = 0)
No R is Q	„	There is no RQ = (RQ = 0)
Some R is Q	„	There is RQ = (RQ > 0)
Some R is not Q	„	There is Rq = (Rq > 0).

With regard to this interpretation I should like to remark—

(1) That it is much less formal and general than the view above advocated, for we have *two* different class-names for Subject—*RQ* and *Rq*—and two different copulas.

(2) That in order to understand *All R is Q* as a denial that there is anything that is both *R* and *q*, it seems necessary to have taken *All R is Q* first of all, as asserting an Identity between *All R* and *Some Q*.

(3) That any one of these four symbolic expressions must itself be read as an Identity-in-Diversity. What meaning, for instance, can be attached to

RQ | is | equal-to-nought,

unless the Predicate (equal-to-nought) has the same Application as the Subject (RQ) ?

(4) That this whole scheme of interpretation is extremely remote from ordinary thought.

(5) That the acceptance of it involves either (a) acquiescence in a chaos of inconsistencies, or (b) the rejection of a large part of the doctrines of traditional Logic, and of usages of common thought which it seems impossible to give up—e.g., all inference from Universals to Particulars—whether in passing directly from A to I, or E to O; or from a pair of Universal Premisses to a Particular Conclusion.

(6) A sixth objection is that the doctrine of different "Universes of Discourse" which this interpretation involves is open to serious criticism; e.g., *All R is Q* is said to mean merely

$$Rq = 0,$$

that is, to be merely a *denial of the existence in my Universe of Discourse of anything that is both R and q*. But if what I am talking about does *not* occur in a given region, why is that region called *my "Universe of Discourse"* ?

Even in order to deny any particular kind of "existence" of Rq, I must (it seems to me) postulate *some* "existence" of it that is *more* than the mere existence involved in *being thought about*—I must always intend some reference beyond the mere "mental equivalent" that accompanies and corresponds to words or signs used with intelligence—for the presence of this "mental equivalent" can never be denied. And if this is so, if in order to deny "existence" of one kind, we have to postulate "existence" of some other kind,—it seems far more simple, and far more true to fact and thought, to say that what we assert or deny in any case is not "existence"—that is, *a kind of existence*—but attributes or characteristics; for one kind of existence can differ from another kind only in characteristics.

And a further objection to the mode of formulating categoricals with which I am here finding fault is, that the Propositions as so expressed are Indesignate or Indefinite—they have unquantified Subjects, and it seems open to an objector to ask, How are these Propositions to be quantified? Are they to be taken as referring to *All* or to *Some* of RQ and Rq? And has the Quantity in *this* case any important bearing on the Import?

I have been insisting that in any Categorical Proposition, *both* aspects of the Term (Application and Signification) must be taken account of, in both Subject and Predicate. But there is an important *element* of truth in what has been called the "Predication" view, *i.e.*, the view that the Subject is to be taken in Denotation and the Predi-

cate in "Connotation"; for it appears to be certainly the case that the Application-aspect is *prominent* in the Subject, and the Signification-aspect *prominent* in the Predicate. The Subject indicates that which is spoken about;—whether or not it indicates it *by means of* Signification, its primary function seems to be to point out, or call attention to, that concerning which predication is made. And this having been done by the Subject, it is done once for all—that (whether Subject of Attributes or Attribute of a Subject) *concerning which Predication is made* is fixed, and there can be no further question on that point. Hence the Application-aspect cannot be that which is *most prominent* in the Predicate; the function of the Predicate is to give *further determination* to that to which the *Subject-Term* applies; hence, in the Predicate, it is the Signification-aspect which is prominent (and of course the Signification that it is intended to emphasise, may quite well be a Class-relation).

Several points of the view which I wish to maintain may be illustrated by reference to the doctrine of Quantification of the Predicate. Quantification is, no doubt, possible in all ordinary cases; it seems to be a necessary step in Conversion; and its office is, apparently, to *emphasise* the Application-aspect of the Term to which it is applied. Hence it would seem that Application has to be taken account of in *both* terms of a proposition. And the refusal of ordinary language to use propositions with quantified Predicates, while class-names used for Subjects are commonly quantified, indicates that, in thought, *Application* is prominent in the Subject, while *Signification* is prominent in the Predicate. This point seems strongly brought out by a consideration of the changes that take place in Conversion. *All R is Q*, e.g., converts to *Some Q is R*, in which Quantification is *added* to what is now the Subject-name, and *dropped* before what is now the Predicate-name.

The above remarks concerning the distinction between Subject and Predicate may be illustrated and I think confirmed by a consideration of the differences of emphasis which appear to result from differences in the *arrangement* of the names used in any proposition. For instance, if instead of saying

- (1) This small fragrant wild flower is a Clematis,

I say

- (2) This small fragrant Clematis is a wild flower,

or

- (3) This small wild Clematis flower is fragrant,

the signification-emphasis falls differently in each case—the first proposition lays stress upon the flower's being a *Clematis*; the second,

upon its being *wild*; the third, upon its being *fragrant*; and each sentence would be more appropriate than either of the others to certain contexts.

The relation between the Identity-in-Diversity view, and the Laws of Thought is important. If

A is A

is taken as expressive of the Law of Identity, it is excessively difficult to see what bearing this Law can have upon ordinary propositions of the *S is P* form (unless it be to exclude them altogether). This is, in fact, the position to which Lotze seems unwillingly driven. He is one of the few writers who seem to have felt the necessity that a logician who defines his subject as

The Science of the Laws of Thought

should be able to show the connection between his definition and his treatment; and as no other equally distinguished thinker has taken equal pains in the matter, it will perhaps be convenient to examine what he says. His attempt to meet the demand which he acknowledges seems to me, I confess, to be a signal failure. In his chapter on the Theory of Judgment (Lotze, *Logic*, Book I, chap. ii) his thought appears (amid much that is interesting and acute) to flounder hopelessly when he touches the real problem--the connection between the ordinary Categorical Proposition of the form

S is P

and the Law of Identity expressed as

A is A.

"A certain embarrassment," he says (*Logic, Trans.*, p. 56) "is at once observable as soon as we ask in what sense S and P are connected in the categorical, as distinct from the hypothetical and disjunctive judgments. A common answer is, that the categorical judgment asserts S of P *absolutely* The necessity of explaining this sense appears most simply from the fact that, of all connections of S and P, the complete identity of the two would be that which most obviously deserved the name of absolute. Yet it is just this which as a rule is *not* intended in the categorical judgment. . . . On the contrary we are at pains to express our real meaning in such judgments [judgments of the form *S is P*] by saying, 'P is not S itself but only a predicate of S,' or

S is not P, it only has P."

Again (p. 59), "Without adding any more to these customary

but unsuccessful attempts to justify the categorical judgment, I will state the conclusion to which we are driven: this absolute connection of two concepts *S* and *P*, in which the one is unconditionally the other, and yet both stand over against each other as different, is a relation quite impracticable in thought; by means of *this* copula (the simple 'is' of the categorical judgment), two different contents cannot be connected at all; they must either fall entirely within one another, or they must remain entirely separate, and the impossible judgment '*S is P*' resolves itself into the three others, '*S is S*,' '*P is P*,' '*S is not P*.' We must not stumble too much at the startling character of this assertion. Our minds are so constantly making categorical judgments of the form '*S is P*,' that no doubt what we mean by them will eventually justify itself, and we shall soon see how this is possible."

"But," he goes on, "the categorical judgment *requires* such a justification."

It is to Lotze's credit that he saw the necessity. How does he go on to meet it? (for, as we saw, he says, "we shall soon see how the justification is possible.")

He continues (p. 62), "The question still remains, What right have we to assign to *S a P* which is not *S*, as a predicate in a categorical judgment?"

"The only answer can be, that we have no right: the numberless categorical judgments of this form which we make in daily life can only be justified by showing that they *mean* something quite different from what they *say*, and that, if we emphasise what they mean, they are in fact identical judgments in the full sense required by the principle of identity," that is, the judgment *S is P* has to be interpreted as

SP is SP,

for, according to Lotze, "the logical law of identity says only What is contradictory is contradictory, What is, is, &c., &c." (p. 60).

The next step in Lotze's inquiry appears to be, that *S is P* is justified as Consequent of a Hypothetical judgment by the consideration that *S is Q* (Antecedent)—thus:

If *S is Q*, *S is P* (and *S is Q*).

But as far as I have been able to discover in Lotze, the same difficulties attach to *S is Q* as we found to attach to *S is P*, and the form *S is P* remains unexplained and unjustified.

From the foregoing, two points seem to me clear—first, that Lotze's ineffectual struggles with *S is P* are due to his Conceptualism (and a consistent Conceptualism seems necessarily atomistic);

second, that—expressed as *A is A*—the Law of Identity (which yet he calls “this primary Law of Thought”) is, as he himself admits, “barren.”

“If,” he says (p. 69), “we consider the whole of our knowledge, we see at once that the principle of identity cannot be its only source. Taken alone, it would isolate every judgment *and even every concept* [the italics are mine] and would not open any way to a progress from the barren self-identity of single elements of thought to their fruitful combination with others.”*

This being so, we seem to be still left asking (and asking in vain), *What is the value or application of this “primary” and “fundamental” Law of Thought?* Nay more, interpreted literally, and *as a pure and mere identity* (not epigrammatically, as in *a bargain’s a bargain*, &c.), what meaning of any kind can it possibly have? Its use in Inference appears to be *nil*, as may be concluded from the opinion of some logicians who, accepting the *A is A* formula, contend that the Law of Identity and the Law of Contradiction are but different expressions or different sides, of the same Law. It is difficult to see how those who hold this view of the Laws of Identity and Contradiction, can ever arrive at

A is B or not B

as an expression of the Law of Excluded Middle. I suppose the *A is A* formula (as well as the corresponding *A is not non-A*) must be due to the rigid conceptualist view of Logic; but on that view no significant assertion is possible—it can say nothing but *A is A* and *A is not non-A*. The rhetorical use of these forms may certainly be effective, but that is only because *A is A* is interpreted into *A is B*, as, *e.g.*, in

A man’s a man,
Cards are cards.

But if the Law is a Law of Identity-in-Diversity, if what it says is—

Everything has a plurality of characteristics (or, Everything
is an identity-in-diversity);

if it can be expressed as—

Every A is B

(a form which Mr. Bosanquet suggests but does not adopt) then

* NOTE.—Ought not this to drive us to recognise that we must *start* with a continuum and differentiate it, not with originally disconnected atoms which can never be welded together—that the *unity* is primary?

indeed it does seem both to afford a Principle of Categorical Propositions of the form *S is P*, to be in line with the best expression of the Law of Contradiction and the Law of Excluded Middle, and to be interestingly related to a Law of Inductive Inference, which may be stated as follows :—

Every characteristic is *inseparable* from *some other* characteristics, and there is an *uniformity* of interdependence between characteristics.

The Law of Identity as just expressed seems to be a generalisation of the condition necessary in every case for the assertion of a proposition of the form *S is P*. It is because *S* has a plurality of characteristics, that it is *possible* to assert *S is P*; it is because I wish to draw attention to the characteristic *P* in the complex *SP*, that I *actually* make the assertion *S is P*.

Throughout the whole of what is commonly called purely Formal Logic, it seems to me that this idea of Identity-in-Diversity furnishes a kind of guiding principle. It is because Identity of Application is affirmed (or denied) in a Categorical Proposition, that we are able to transpose Subject and Predicate in conversion; and I think the same holds of Obversion and Inference by Added Determinants and by substitution of similars. In Hypothetical Propositions, there must be identity of application between the Subject of the Antecedent and the Subject of the Consequent; *e.g.*—

If *M* is *P*, *S* is *P*,

involves the supposition that *S is M*, the Hypothetical being thus of the nature of an enthymeme (in Jevons's sense).

And in ordinary Mediate Inference or Syllogism, there is the same dependence upon this principle of Identity. The rule concerning the Middle Term—that it must be distributed and must not be ambiguous—is only a way of providing that there shall *really* be a Middle Term, and thus an identical reference of Major and Minor Terms. The presence of a *true* Middle Term is the *one* condition on which the possibility of Inference from a pair of premisses depends.

And the rule which provides against Illicit process of Major or Minor Term, is simply a condition which insures that the Major and Minor in the conclusion shall have an application identical (in whole or part) with the application of the Major and Minor in the premisses.

Also the Rules concerning Negative and Particular Premisses, might be shown to depend similarly upon Identity of Application.

And, further, a Canon applicable to *all* Categorical Syllogisms might be constructed on the same Principle.

And all Fallacies may be shown to consist in mistaken assertion or denial of Identity.

The treatment of Relative Propositions, *quâ* Relative, cannot indeed be explained wholly by reference to Identity-in-Diversity—at least, I have not yet seen how it could be done, and I do not think it could be. But I believe that the recognition of what this principle *will* do in explaining and unifying logical doctrines, especially its application to the Import of Propositions, does help one to see how it is, exactly, that Relative Propositions, which include Mathematical Propositions, differ from those which are Non-relative, and why precisely it is that any scheme of a single and simple “Logic of Relatives” is so chimerical.

The Unity with which Relative Propositions, *as such*, are concerned, seems to be a Unity of Parts and Whole, and I think it might be suggested that Classification and Systematisation generally, come most appropriately under the head of *Relative* Logic.

What I have chiefly wanted to insist on is that the theory of the Import of Categorical Propositions is of fundamental importance; for Logic (on any treatment) is concerned with the relations of statements or Propositions, their compatibility, incompatibility, or interdependence (“inference,” of whatever kind, being made possible by a relation of dependence between propositions).

That Logic is concerned with the relations of propositions, is explicitly admitted by some Logicians, *e.g.*, Boole and Jevons; and it is admitted *implicitly*—in their treatment if not in their definitions—by all other logicians with whose works I am acquainted.

And a Theory of *Import* is logically prior to a Theory of *Relations*. And it seems to me that no Theory of the Import of Propositions or Statements can be satisfactory unless a Theory of *Relations* (of Immediate Inference, Deduction, &c.) follows naturally and necessarily from it; and also that “Laws of Thought” can only be shown to be of primary or fundamental importance in Logic if they can be shown to furnish a principle of (a) Import, or (b) Relations of Propositions.

The Principle of Identity-in-Diversity, as a Law of Thought, seems to me to furnish such a principle of Import, and the corresponding interpretation of Categoricals to be one from which the whole theory of “Inference” proceeds by natural and inevitable development, as I have tried to indicate.

SYMPOSIUM—IS RELIGION PRE-SUPPOSED BY MORALITY, OR MORALITY BY RELIGION?

I.—*By* R. J. RYLE.

INASMUCH as this question may be understood in several distinct senses, I should like to explain the meaning which I take it to have for the purposes of our present investigation.

The word Religion is used, as Professor Max Muller has pointed out, with at least three different significations.

Sometimes the word stands for the object of belief; sometimes it means the power of belief or attitude of mind of the religious believer; and sometimes again it means the manifestation of belief whether in acts of worship or piety.

Now as I understand the question before us we are not here concerned with the object or objects of belief, but with the fact that there is a certain kind of belief, or that there exists a certain power or faculty of belief which manifests itself in certain particular acts.

To explain my meaning by example. It was maintained by Kant that only crude and vague conceptions of the Deity, or indifference with regard to the Deity were alone possible till a certain refinement of moral concepts had been attained, and that finally a concept of the Deity was elaborated which we hold to be correct, not because speculative reason has shown it to be so, but because of its harmony with the moral principles of reason. Here two entirely different problems are touched. The first problem is concerned with the question how far the development of Moral Concepts has been a factor in bringing about consistent and distinct religious beliefs; and the second problem is, whether the correctness of a religious belief is to be held to be established by its agreement with what are called the moral principles of reason. Now as I understand our question, we have not to consider whether morality (in the sense of moral principles) does or does not establish the correctness of, or warrant our belief in, certain doctrines of religion. What we have to consider is rather whether Morality, regarded as that kind of conduct which typically implies the significant conception conveyed by the word "ought," pre-supposes the presence in the human mind of a certain kind of belief or attitude of mind expressed by the word Religion.

If I am right in taking this view of the meaning of our question, our inquiry is in the main an empirical or psychological one. If I am wrong in thinking that our quarry is to be caught in such a net, I am glad to feel that I have to follow me two equally earnest hunters who may catch what I miss. Nor can I leave out of sight the

possibility that to the eye of some who look down upon this chase from a great height, the phrase "pre-supposition" may seem inapplicable.

Possibly there may be a point of view from which Religion and Morality may be regarded as parallel manifestations of a single spiritual impulse, or there may be a land of promise in which they are one.

But with these glimpses I am not here concerned; neither can I further our pursuit by aid of a preliminary definition; nor yet can I undertake to decide between the various accounts which anthropologists have to offer of the historical rise of Religion and Morality among men.

It may be that ancestor worship, or the visions of the night, or a spontaneous tendency to see our minds in the world of things outside us, has been chiefly at work; but by one means or other the recognition of spirit or intelligence other than ours has become a prominent feature of most religions, and so far as this is so there seems to be reason for holding that Religion pre-supposes Morality.

Suppose I pick up a shell on the sea-shore, and allow myself to wander into a long chain of reflections. I think of the Mollusk which inhabited it, of the vital processes carried on in the lifetime of the animal, of the processes of secretion and growth, of which this shell remains the monument, and of the long course of zoological and geological history which the shell represents. Such thoughts lie all within the domain of natural science. They may be appropriated to other uses. A Lucretius or a Tennyson might weave them into a philosophy of the Universe, which should combine the severity of science and the earnestness of the moral teacher in one sublime poem. In themselves, however, they are bare details of facts and events. But my thoughts may take a different turn. I may remind myself that I am dealing with what is called an organism. As such it exhibited certain noteworthy *adaptations* in structure and function which distinguish such an object from a block of stone. It may have been developed, biologically speaking, out of some less elaborate form of life; but only organic forms admit of organic development; and the characters of adjustment of part to part, and of the whole to its place in the world remind me of such mechanisms as a watch is, or of such objects as I know to be the product of human design. Hence I am led on to imagine a factor which my previous series of thoughts had not included, and to attribute to this factor powers of a piece with those of human intelligence in quality, though not in other respects comparable with them.

I have now passed quite out of the region of Natural Science.

But have I passed into that of Religion? At first sight one is

inclined to say, Yes. But has the simple conception of mind as operative in the Universe ever constituted Religion either for individuals or nations? When we meet with it in confessedly religious writings it is always as a doctrine, important metaphysically it may be, but to us human beings, of interest only if it can be shown to imply the co-existence with Intelligence of Character.

Here, then, lies the significance of that speculation. When we substitute for, or interpolate among our biological data the conception of Design, then, whatever else we have done, we have replaced the conception of events by the conception of action. When once this conception has arisen, the road is open for further additions and refinement; and, to all but the Metaphysician (who may be conscious of difficulties which have no being for the general heart of man) theology by a very natural step becomes religion. This step is the association of the conception of an agent with all those emotions of approval, disapproval, love and hatred which we do not apply to events, and do readily apply to actions. "Will and design," in Bishop Butler's words, "constitute the very nature of actions as such, to our perception they are the object and the only one of the approving and disapproving faculty." The simplest savage, in so far as he does not view the world as a series of events merely to be sought or shunned, but as the scene of actions no matter whether attributed to good or bad, to embodied or disembodied spirits—places himself in a position in which he would be more than human if he were to stop at this point.

From his earliest infancy, the fact that actions are things bidden or forbidden, praiseworthy or the reverse, has been as familiar as is the fact that they are the deeds of persons like himself.

Indeed it may well be doubted whether anyone but a philosopher would be troubled (as Aristotle is in his *Ethics*) with scruples as to the complete applicability of the character of human actions to the actions of the gods. Religion, in short, is not, so long as its theology remains limited to the recognition of Intelligence in the world; and it cannot remain limited because man the speculator is also man the social being, whose life involves moral relations, and more or less crudely, some conception of moral relations wherever he is man at all.

In this sense Religion pre-supposes Morality. Without Morality there may be a metaphysics or a philosophy of things, but not religion.

And the fact that the true relation of Religion and Morality are expressed in this description appears quite as much when we examine the changes which take place in the religion and morality of man as when we examine the implication of that central conception of mind in the world which we have just left. In the words of Professor Jowett: "As in the religion of Greece in the age of Plato,

so in all religions, the consideration of their morality comes first, afterwards the truth of the documents or of the events natural or supernatural which are told of them."

In other words, to the unreflecting propounders of the earliest religious beliefs, these beliefs are not unrelated to the morality of the time and place. To the scrutiny of the philosophic moralist as time goes on it appears that they no longer reflect and sanction morality, but immorality. They must be changed. Where the beliefs merely relate to biographical details, and poetical fancies, the Pantheon may stand, but wheresoever the interest of Morality is involved this must lead and the rest may follow, or die out, or pass over into the realm of poetry and out of that of history.

In this light we may regard the reformation, which Socrates and Plato started by "moral considerations," the current of which may be followed down to the days of the later Roman Stoics.

Another instructive example may be found in the rise and spread of Buddhism, a belief or attitude of belief which pre-supposed morality indeed, but which went even further than Stoicism in its repudiation of the world without, and its reliance upon the world within; in complete independence of current, social, and ceremonial order, and of current religious beliefs and ceremonies.

The opposite view to the one here advocated, viz., the view that Morality pre-supposes Religion, is based, I believe, upon a confusion which language renders almost unavoidable—I mean the confusion of the actual morality of man as a fact with man's current conceptions of this morality.

Let me illustrate this confusion by quoting a few sentences from Professor Caird's lectures on the Evolution of Religion, without however wishing to assert that Professor Caird was not alive to the distinction I wish to emphasise.

He says, "Man's relation to God is inevitably conceived as the ground of a social relation between himself and beings like himself, which determines at once their practical obligations to him, and his practical obligations to them." Again, "As he conceives of his relations to the power which determines his place in the world, and especially his place in relation to other men, so also he conceives of the duty which he owes to them."

Now this is no doubt a true account of the way in which man represents to himself, or conceives of his duty toward his neighbour, when he has reached a stage of intellectual advancement adequate to the formation of Moral ideas; but morality in fact precedes morality in theory no less than astronomical facts precede astronomical principles. And we have only to ask the question, "Whence does man derive his conceptions of his relations to God?" in order to see that

these conceptions pre-suppose morality in practice. They may be described from either of two sides. We may speak of man's conception of his relation toward God, or of his conception of God's relation toward himself. From the side of man we must explicitly or implicitly admit the principle implied in the words, "He that loveth not his brother whom he hath seen, how can he love God whom he hath not seen?" And if we ask for the source of man's conceptions of the attitude of his God, or God's toward man, we must answer in words which are to the same effect. The saint whose claims are most strenuous that God's dealings with him are a portion of his own personal experience, will admit that the approving and disapproving Spirit whose admonitions he apprehends, is active also in the world around, and he can form no image of such a Being, or of such action without fixing his eyes upon such works of truth, justice, or love, as he can recognise in the history of mankind. If, as the late Professor Green writes, "God is to be conceived as the Being with whom the human spirit is identical, in the sense that He is all which the human spirit is capable of becoming," still the fact remains (as he goes on to shew in discussing the Moral Ideal and Moral Progress) that only by reflection or that which he has done and has become, does man come to be more fully aware of what he has it in him to do and to become.

Thus Religion pre-supposes Morality wherever, even in its crudest forms, it dwells on actions as distinct from events. It pre-supposes Morality also in the process of its development, whether by way of gradual growth, or by reformation, and it pre-supposes Morality yet more explicitly, as the formulation of ethical theory and of the expression of religious belief become more the work of philosophical criticism, and less the work of the uncritical multitude of mankind.

II.—By C. C. J. WEBB.

Mr. Ryle observes very truly that the question propounded for discussion in this Symposium has several distinct senses. He chooses one of these for his own treatment of the matter, and enquires only whether the state of mind we call Religion pre-supposes moral conceptions or no. By using the word "moral" in a wide sense, he avoids conflict with historical facts revealing to us stages of religious development in which Religion is held to sanction or require conduct to our apprehension highly *immoral*: he decides that Religion pre-supposes Morality, understanding by this phrase that Religion is fundamentally anthropomorphic, making God in the likeness of man, and therefore moral. Here I am wholly at one with Mr. Ryle.

But for myself I would take a somewhat different line of thought. In philosophy words like "pre-suppose," which contain a note of time, are apt to be ambiguous. The difference between the two orders of knowledge — the relative order, the order of human discovery, on the one hand, and the absolute order, the order of natural reality, on the other, is familiar and well established. Our answers to the question before us will, I think, differ, according as we think of one or the other of these orders. Again, phrases like those embodied in our question, are wont to carry with them associations, which extend beyond the literal meaning of their constituent words. When one hears it said that Morality pre-supposes Religion, one is inclined to think of systems in which moral distinctions are supposed to depend on the arbitrary will or appointment of the Deity, and ethical convictions, not definitely grounded on religious dogma, despised.

On the other hand, when it is said that Religion pre-supposes Morality, one perhaps thinks of such a movement as that to which the now numerous "ethical societies" of this country, of America, and of Germany, owe their origin. The supporters of these often tend to assume the possibility of an entire severance between Morality and theism in any form, and to speak of positive Religion as if it were but a graceful form, in which indeed the habits of certain persons lead them to clothe their ethical emotions, but with which those of a different temperament may very well dispense.

With the former type of opinion I have no sympathy at all. To make "Revealed Religion" in any shape the pre-supposition of Morality is an impossible task. "Ante anima," says Tertullian very well, "quam prophetia" (*Contra Marc.*, i, 10). To base theology upon the "rational" proofs without the moral (as must be done, unless, indeed, we allow ourselves a manifest *petitio principii*, if "natural" Religion be made the pre-supposition of Morality) is perversely to prefer the less persuasive to the more persuasive topics in our argument. To assert that Morality pre-supposes Religion in any such sense as this is to run counter to the best traditions, not only of moral philosophy, but of Christian theology.

With the second type of opinion I have much sympathy, so far as it represents a reaction from an opposite and less amiable extreme: for though comparatively few professed moralists may have made Morality depends for its sanction on Religion, religious persons are apt to hold some such view, though vaguely, and without analysis. But I cannot sympathise whole-heartedly in a movement which would ascribe to theism the inessential and merely ornamental place which it seems to hold, at the best, in the programmes of "ethical societies."

In my view, Morality pre-supposes Religion, much as in the

Kantian philosophy the moral law may be said to pre-suppose the "postulates of the practical reason." We do not recognise the authority of the moral law, in consequence of our belief in these; but the intrinsic unconditional authority of the moral law appealing irresistibly to the conscience, leads us to believe in whatever the presence of this Categorical Imperative within us is found on consideration to involve. Just so here, as it seems to me, through the moral consciousness we come to the knowledge of God, and so Religion in the order of our knowledge pre-supposes Morality as its *ratio cognoscendi*: but Morality remains ultimately unintelligible except through belief in God, and thus Morality, in the order of nature, pre-supposes the object of Religion as its *ratio essendi*. For, as a moralist so far removed in his views from dogmatic theism as our friend and Vice-President, Professor Alexander, has admirably said, "Morality is in itself and necessarily a kind of optimism" (*Moral Order and Progress*, ii, 5, § 37): and I fail to understand any justification of optimism of whatever kind, except in a belief which is already, to all intents and purposes, a kind of theism.

On the other hand, Religion pre-supposes Morality in the sense that the evidence of the moral law requires no authentication by theological dogma, but that for us, at least at our present stage of intellectual progress, the way to Religion must be through Morality: that the only fruitful theology is that which makes its main appeal to the moral consciousness; counts it, with Plato (*Rep.* iii, 391), the worst of blasphemies to ascribe to God anything but what the conscience can approve, makes it an axiom that though "clouds and darkness are round about him," yet "righteousness and judgment" (as we commonly understand those words) "are the habitation of his seat" (*Ps.* xcvi, 2); holds that only to one for whom moral habit has issued in moral insight can the judgment of theological truth belong: as it is said in the Gospel, "If any one will do God's will, he shall know of the doctrine" (*John*, vii, 17). It is not the least of the many services rendered by Kant to the highest interests of humanity, that he so much insisted, and that at a time when such insistence was much needed, on the superiority of the practical to the speculative reason in the sphere of theology.

But this does not exhaust the whole problem which our question sets to us.

Let us, still bearing in mind the already mentioned Aristotelian distinction between the two orders of knowledge, look for a moment at natural science. Here the facts of sense are *πρότερα ἡμῶν*: and from them we are led to scientific theory which explains these, and other facts as well, and so is *πρότερα φύσει*. But facts of sense would never have led to scientific theory but for the presence from the first

of a scientific impulse, a discontent with the Many, a craving after the One in the Many. Yet this scientific impulse in its earliest manifestations assumes a form which appears, from the point of view of more highly developed science, to be wholly unscientific. Mythology, to parody the famous saying of Bacon about revenge, is a kind of wild science.

Just so the facts of the moral consciousness, which lead to Religion as their explanation, are from the first associated with what is really a religious impulse, though early Religion, when judged by our moral standards, often seems immoral, and though ethical reformers have often found themselves thrown into a position antagonistic to the Religion around them.

The moral consciousness is always the consciousness of an ideal other than our present state: for, even where there is complete self approval, there is a potential divergence implied in the actual coincidence of the ideal and the real. In its rudimentary form, however, the ideal may be very different from the ideal of a more advanced stage of moral culture. The sense of incompleteness and dependence, which is the germ of Religion, is scarcely distinguishable from the sense of the breach between real and ideal, which is the germ of Morality. And here, too, that which we set over against ourselves as the complement of our incompleteness, as the power which resists or constrains us, is not from the first the "holy God" of advanced Religion.

The religious impulse may lead to the worship of what is strangest, most inscrutable, most baffling, as wishing *there*, in that which is most alien from man, to find the likeness of man—for there is, I take it, personification of some sort or kind in all worship. The supposed religious suggestiveness of dreams is very easily understood, if we consider that here is found a specially close union of the likeness of man's common life with something most alien from it. For in dreams we have scenes, actions, events, like those of man's life with his fellows, yet seemingly disconnected from the waking life, and to a great degree independent of its rules and customs. This observation I make as it occurs to me, and for what it is worth.

Thus early conceptions of Deity are probably conceptions of the powerful and the wonderful, rather than of the good. It is a vain pedantry which attempts to rend away theology from its roots in that wonder, which is also, as Plato and Aristotle have told us, the starting point of all philosophy (*Theæt.*, 155 D., *Metaph.* A., 982, b. 12). The Marcionites in the early Christian Church were guilty of this pedantry. They tried to believe in a good God, who should be other than, and opposed to, the Creator of the world. They are not without imitators now, among those who feel strongly the

pressure of "the riddle of the painful earth," and the truth of the poet's words:

"Nature, red in tooth and claw,
With ravine, shrieks against his creed."

who believes in a Creator that is also a God of love. And these imitators are encouraged by thinkers such as Mr. Leslie Stephen, who bids them "choose between the Creator and the Judge" (*Science of Ethics*, p. 279). But Tertullian, in his treatise against the Marcionites, seems to me to have made it plain that our belief in God, though to us Morality may have become its principal evidence, rests ultimately on the evidence of power; that "God" means to the plain man primarily the power behind the world of his experience, though now also that this power is wielded according to moral rules. The witness to God is twofold: "Totum hoc quod sumus et in quo sumus," as Tertullian puts it (c. *Marc.*, i, 10); "The starry heaven above me, and the moral law within me," as Kant has it (*Kr. d. prakt. Vernunft*, Theil. ii, Hart. v, 167).

Natural science, philosophy, and morality start in one impulse of wonder, and one craving after unity. This impulse, and this craving, from the first, tend to be anthropomorphic; and this anthropomorphism is the beginning of Religion. The different lines of rational effort have widely diverged; but Religion still maintains the hope of their ultimate reunion in a higher synthesis, in the beatific vision of the unity of Power, Wisdom, and Love, in the God whose image man has made in his own likeness, and yet not made wrongly, because he himself is made in the image of God.

III.—By A. F. SHAND.

Before I discuss the arguments of Mr. Ryle and Mr. Webb let me, for clearness sake, distinguish between two senses in which we use the word presuppose. It may refer either to conceptions or to facts, and its meaning in both cases is different. If we argue that the conception of religion presupposes the conception of morality, we mean that the one is found, on analysis, to contain the other. If we argue, on the other hand, that morality as a fact presupposes the existence of religion, we mean that the fact of morality is dependent on the action of religion. Here, we may doubt whether the disjunctive form of our question can be taken literally: for religion and morality interact, and each is what it is in part through the influence of the other.

But we may mean something more when we say that morality

presupposes religion, not merely that it is influenced by religion, for better or for worse, but that it presupposes the truth of religion. It is to this last enquiry that Mr. Webb has chiefly confined himself. I sympathise so much with his argument and conclusion that I find little to criticise in it. If there is to be any proof of the Divine existence, not merely in the sense of an infinite intelligence, but of an infinite goodness, that proof, we shall most of us agree, must be based on the moral nature of man. But although the moral principal may justify our belief or faith in God, can there be evolved from it a strict proof of his existence? Morality, Mr. Webb argues, "remains ultimately unintelligible except through belief in God" (p. 2). In what sense is it unintelligible? Is it that we cannot understand or interpret its existence except on the presupposition of this belief? That as materialism finds an impassable gulf between the whirl of atoms and the first dawn of conscious life, so an infinite intelligence without feeling or moral principle cannot account for the rise of these unique elements in man? There are those who will say, there are many things which we cannot, as yet, understand or interpret; if we, in ignorance of their origin, frame a hypothesis which seems to explain it, we must not mistake that hypothesis for scientific proof.

Still have we not such a proof in Idealism? Is it not the growing tendency of philosophy to adopt an idealistic theory of the world in opposition to the dualism of ordinary thought? In fact, if philosophy has proved anything it may be argued, it has surely proved that the universe has no reality except as related to mind or subject; and since that world is no illusion of ours, it must subsist in relation to a universal subject. Yet, assuming this, there is a great gap between this metaphysical conception and the God who satisfies the aspirations of the moral nature. It is the conception of what such a being *ought* to be, and the presence in the human soul of the instincts of trust and love, declaring what he *must* be, which remould this metaphysical conception into the God whom the heart worships. In this sense, morality pre-supposes religion, as claiming from the universe fulfilment of its aspirations.

And morality justifies though it cannot prove this belief, because man is a practical as well as an intellectual being. As intellectual he strives to adjust his opinions to the evidences on which they are based: as practical he makes the best of a poor chance by throwing into the scale all the hope and confidence of which he is possessed.

There are many things we must take in an attitude of hope and trust, the character of those we love, the career which we choose in youth, human life itself, above all God. Our reasoned opinions undergo a transformation when taken as principles on which we act:

for we cannot act with vigour and constancy without courage, hope, and confidence; and these emotions import into our opinions a greater certainty than can be theoretically justified. Hence religious bias, and political party spirit. Do you suppose that any politician in the strife of party faction could maintain that scientific attitude to his opinions which he may have adopted in their formation. He inevitably comes to regard them with greater confidence, and opposite opinions with greater distrust. He loves the one and hates the other. And though these emotions often hurry him into excesses, yet without them he would not find the energy and courage to act in the teeth of opposition. He would become an "arm-chair politician," or "doctrinaire," ready to discuss but not to act, free from the influences which disturb a chastened scientific judgment, but free also from the generous enthusiasm, the hatred of wrong, which makes the great political reformer.

Thus while it is our intellectual ideal to hold opinions with a belief in proportion to their evidences, practical considerations oblige us to hold them with a degree in excess of that. And between these moods we alternate, or incline to the one or the other, according to our character and circumstances.

Through a confusion between this scientific attitude of enquiry and the practical attitude in which the motive power to realise ideas is of supreme importance, many think a belief which is not proportionate to its evidences is morally wrong (Clifford's *Essays*, Vol. 11, p. 176). But this confusion turns most disastrously against the scientific life itself, because, like all great things, that life is based on trust—the trust that knowledge must benefit the race, and can never destroy what is supremely precious to it.

Morality then justifies trust or faith, because our whole practical life depends on it; and it justifies our trust in God because that is the logical presupposition of all trust whatever. As Mr. Webb truly remarks, there is no other "justification of optimism" than this.

But there is another sense in which we may interpret the statement that morality is unintelligible apart from belief in God. It may mean that morality, apart from this belief, contains an insoluble contradiction. The attempt to prove this lies in an application of the Hegelian doctrine of the negative or false infinite to the facts of the moral life. Our moral life has an infinite ideal; but, it is argued, if that ideal be not eternally realised in God, it becomes self-contradictory. Man hopes to transcend the finite. Step by step he climbs toward perfection. But as he breaks through his old limits, he finds himself confined in new ones. His goal is as far off as ever. By no progress, however indefinitely prolonged, will he reach it. Because he has taken the false infinite of quantity, which contra-

dicts itself, inasmuch as what is real in it is always finite (*Introduction to the Philosophy of Religion*, Dr. Caird, pp. 295-6). But God is the true infinite eternally realised. In him the contradiction between the real and ideal is at rest; and man, in losing his particular being in this universal life, escapes too from contradiction, and consummates his ideal.

We have only to assume the truth of this conception to see that it refutes itself. What if in God the contradiction between the real and ideal vanishes, in man, as long as he be man, it remains. He cannot rest in contemplation of the Divine perfection: he cannot regard that as the fulfilment of his ideal. Such quietism would be the destruction, not the realisation, of morality. But if his ideal of indefinite progress must remain, the assumption of God's existence has not solved the contradiction of his moral life. The proof of this assumption fails, like so many other attempts to demonstrate the necessity of God. The false or negative infinite, as it is called, clings to man, because he is a finite spirit and not the infinite spirit. He lives in time, not in eternity. And as he creeps from point to point, he strives ever for progress; for that is the only ideal possible to him.

But morality is held to presuppose the truth of religion on other grounds than this. There are some who think that moral laws have no binding power apart from the will of a Supreme being. This conception has been so often refuted that I need say little about it. There is an obvious fallacy in its reasonings. We only *ought* to obey the Divine will so far as we conceive it to be a moral will, and not because it is almighty. Morality is based on no external sanction, its only and sufficient sanction is within itself.

I now pass to the question which Mr. Ryle has considered, whether religion presupposes morality. We may admit that it is true generally of all the higher religions, and all that we should, properly speaking, call religion. But I think it would be difficult for Mr. Ryle and Mr. Webb to prove that, using religion in the widest historical sense of that term, that there is always a moral element implied in its conception. From the premise of Mr. Webb that "Religion is fundamentally anthropomorphic, making God in the likeness of man" (p. 1), the conclusion "therefore moral" does not follow. The conception of a devil is also anthropomorphic; but we scarcely conceive him as moral. Man is jealous of the prerogatives of his moral nature. He is more ready to think evil than good of strangers: and when he recognises that he is surrounded by strange and mysterious powers, the terror which his situation evokes makes him the more ready to conceive them as selfish and cruel. If he obey a cruel chief may he not also, through the same impulse of fear, worship a cruel God?

He has learnt that bad men may be propitiated by service, flattery, sacrifices; and it is the combination of all these he offers to his God. By these means he hopes to escape his vengeance, and even to gain some protection to himself. If this expectation be not disappointed—if the forces of nature which he ascribes to the action of his God are on the whole favourable to him—he may come to trust and love this Being, and in consequence to transfer to him moral qualities. But how often must the action of such beings have perplexed him, by their caprice, their readiness to alternate good and evil treatment without reason, as the powers of nature would perplex us in their moral aspect, did we still personify them!

And as the roots of religion seem independent of morality, so the highest religions may relapse to the same level of fear and selfishness. The biographer of a great Statesman tells us that his religion was the caution of a wise general who is careful not to leave his rear exposed. And in "Holy Willie's Prayer," by Burns, we have an incomparable satire upon a genuine phase of Calvinism—

"O thou, wha in the heavens dost dwell,
Wha, as it pleases best thyself,
Sends ane to heaven, and ten to hell,
A' for thy glory,
And no for ony guid or ill
They've done afore thee!"

I do not think we can call any religion moral in which the being worshipped is regarded as a selfish irresponsible tyrant. Nor can man be said to be moral until he comes, from whatever motives, to include the good of others, his family at least, in his own good. Not until his gods require good conduct, such as he conceives it, toward his fellow men, in addition to services appropriated to themselves, can they be entitled moral.

I conceive then that Religion and Morality sprang from independent roots; the one from awe and terror of the mysterious powers which surround us, the other from a common interest in our fellow men. But though they sprang separately, they tended to grow together. There seems to be a close psychological connection between the conception of a being that arouses awe and wonder, and the attribution of goodness to him. It is hard for anyone who is sensitive to the beauty and mystery of the great forces of nature not to feel that the infinite power that co-ordinates them is as immeasurably above man in knowledge and goodness, as in all other respects. A natural chain of association leads from the attribution of one kind of greatness to the attribution of others. There seems a kind of contradiction in conceiving him as at once so great and yet so little

as without all that is greatest in man. Tennyson expresses this in the words "Doubt no longer that the highest is the wisest and the best." Still it seems probable that this passage from the conception of power to that of goodness was not reached, until the terror of a mysterious agency was supplemented by gratitude or admiration. But when this passage is reached religion is combined with morality. The religion of fear grows into the religion of reverence and love. Each as it exists and develops is influenced by the action of the other. Each presupposes the other. But, as man still conceives God as requiring something on his own account, for his personal glory or advantage, as he has transferred to him human egoism and vanity, as well as justice and love, so this element of selfishness in religion tends again to separate it from morality as it tends to alienate man from his conscience. To a later age the beliefs and practices which God is held to require on his own account may be regarded as immoral. Morality has advanced; Religion has remained stationary. The best and most courageous men are found outside its ranks. Judged by the higher moral conceptions which society has reached, religion no longer presupposes morality, but immorality. But, by this alienation, both are losers. Religion sinks to a superstition whose function it is to preserve effete moral conceptions and to soothe the terrors of men in respect of this world or another; and morality, deprived of its faith, its stimulus, its consolation, tends to grow weary and pessimistic.

ON MR. F. H. BRADLEY'S "APPEARANCE AND
REALITY."

By H. W. CARR.

My intention in this paper is to put before you as clearly as I am able Mr. Bradley's view of the Nature of Reality as explained in his recent work entitled *Appearance and Reality*. It is only possible in a paper to deal with a very small part of the problem, and I have chosen that part which seems to me the central point of the doctrine, and I shall have to leave unnoticed entirely all that most suggestive part of the book which deals with the aspect of the problem to the various spheres of experience and its application to the various problems of philosophy.

To criticise Mr. Bradley is at once the easiest and the most difficult task. The easiest, inasmuch as he never fails to give you

the clue to the weakest point in his argument and never attempts to disguise it; and the most difficult inasmuch as he states for you an objection to his argument with such clearness and effect that you are often in doubt as to whether he rejects or accepts it.

The parts of the book that I am about to notice are the chapters on "The General Nature of Reality," "Thought and Reality," and also some points in what is probably the most pregnant chapter in the book, that on "Degrees of Truth and Reality."

The argument put forward by Mr. Bradley to prove that we possess a knowledge of Reality starts from the logical necessity of a criterion in all judgment. It is impossible for us to say that anything experienced is unreal unless we are able to judge it from a positive standpoint. We do possess, or at least suppose ourselves to possess, an absolute criterion of reality which enables us to test every claimant. Mr. Bradley, in the first part of this book, has examined and criticised in detail the various attempts that philosophy has made to distinguish the real from the apparent. The criterion that has destroyed the claim of one attempt after another to establish itself as real has been the test of self-subsistence. The real must be self-contained, it must not contradict itself, but everything that can come within our knowledge as part of our world turns out on examination to be inconsistent with itself, its being is in another. The attempt to find reality in Primary qualities as distinct from Secondary qualities, in Substance, in Relation, in Space and Time, in Motion and Change, in Causation, in Activity, in Things, in Self, in Phenomena, and even in "Things-in-themselves" has proved in every instance futile, each has proved to be appearance, none has succeeded in being reality. But more than this, it is in the nature of the case inconceivable that any one-sided aspect or part of experience should be able to establish a claim to reality, for it is in the nature of thought to distinguish content from existence. To conceive of anything unrelated is impossible; such a thing is for thought, nothing. Existence without content or merely identical with its content is meaningless. Yet this very knowledge of the unreality of every part of experience that we test, this knowledge that it is appearance and not reality is a knowledge of reality. We at least know what reality is not, and, as every negation affirms something, therefore we have positive knowledge of reality.

This, in very brief outline, is what I take the starting point of Mr. Bradley's argument to be. Having established the conclusion that we possess a positive knowledge of reality, he proceeds to enquire what knowledge we have of its content, and he claims to have discovered that our knowledge is by no means confined to a bare formal abstraction.

Let us take the stages of the argument as they proceed: "Whatever is rejected as appearance is for that very reason no mere nonentity. It cannot bodily be shelved and merely got rid of, and therefore, since it must fall somewhere, it must belong to reality. To take it as existing somehow and somewhere in the unreal, would surely be quite meaningless. For reality must own and it cannot be less than appearance" (p. 135).

But may not reality be such that our knowledge cannot reach it? Even to raise such a doubt, we are told, is a claim to know reality. To say that knowledge must fail to transcend appearance is in fact to transcend it. If there is no absolute criterion, how can we say anything at all about appearance? We cannot accept open self-contradiction. In rejecting the inconsistent as appearance we are applying a positive knowledge of the ultimate nature of things. Ultimate reality is such that it does not contradict itself, and this is an *absolute* criterion, for even in attempting to doubt it we tacitly assume its validity. "Thinking means the acceptance of a certain standard, and that standard in any case is an assumption as to the character of Reality" (p. 153).

In this argument I wish to distinguish two propositions—(1.) We have an absolute criterion of reality. This proposition seems to me quite unassailable. I do not call in question either the criterion or the absoluteness. I entirely agree with Mr. Bradley that the absoluteness is unaffected even if we take the view that the criterion has been developed for us by experience. (2.) The second proposition is this, that the possession of a criterion amounts to or involves the positive knowledge of reality. This I entirely fail to see. I cannot even make it intelligible to myself. Philosophy, we are to consider, has been striving to discover reality, every attempt and every imagined success has proved delusive, as Mr. Bradley has shown in this book in a truly masterly manner; is it the fact that this very reality that was being sought was positively known in or by the very criterion by which the unreal was being shown to be unreal? Put it another way. Every negation affirms, but also every affirmation negates (I am not going to raise the question as to whether this is a universal logical axiom, any exception, if there be one, will be allowed not to affect our use of it here). The negation, everything inconsistent with itself is unreal, affirms that the real is self-subsistent. Is this that knowledge of reality that I am seeking? If it is, it seems to me quite compatible with the conclusion there is no reality or reality is not. I can extract no more out of it than a criterion of reality, try how I will. Reality and a criterion of reality are not identical. Until I can find something that will bear the test of my criterion, I do not know

reality. I find it impossible to pass simply from knowledge of criterion of reality to knowledge of reality. I have stated this objection in the way in which it forces itself upon me. Mr. Bradley does meet it and allows it so far as to admit that "to know only so much may very possibly be useless; it may leave us without the information which we desire most to obtain; but for all that it is not total ignorance" (p. 139). No, it is not total ignorance in that absolute or rather extreme sense of the phrase that makes it equal to inconceivability. In that sense the phrase becomes unmeaning. I cannot say I am ignorant of anything without contradicting my statement in the very fact of making it. But surely there is an intelligible sense in which I can say, for instance, I know that I do not know reality; here I assume the possession of an absolute criterion doubtless, but I assert that so far I have applied it without finding anything to stand the test of it, and until I am successful my conclusion is sound. I allow, then, this much to this part of the argument that Reality is not inconceivable. I think such a conclusion might have been reached immediately by simply pointing out that the absolutely inconceivable cannot be even talked about.

I shall have to notice further on the question as to whether Mr. Bradley in all this argument is using the word "Reality" in a particular sense of his own, but the answer to that question will best appear in following the argument.

Possibly some one may reply that I am missing the point of the argument; that knowledge of reality is involved in, not identical, with knowledge of a criterion of reality, that I can only say the real is self-subsistent if I have positive knowledge of a reality and have discovered that this attribute belongs to it. I do not suggest that this is Mr. Bradley's meaning; if it were it could not be very difficult to solve the puzzle of reality. It would be almost incredible that philosophers should have gone on a blundering search for it among primary qualities, substances, spatial and temporal relations, &c., if it were something they had already recognised before they set out. I state it because it seems to me to show the nature of the criterion. Reality is an attribute which we try to discover in the various objects of consciousness. The judgment, the real does not contradict itself, is logically prior to the judgment, the real is one. The criterion does not explicitly exclude the possibility of a plurality of reals. The possession of an absolute criterion is quite compatible with the judgment, reality is a quality not possessed by any known object.

The next stage in the positive characterisation of Reality is this. "The character of the real is to possess everything phenomenal in a

harmonious form" (p. 140); or, again, "Reality is one in the sense that it has a positive nature exclusive of discord" (*ib.*); or, again, "The real is individual. It is one in the sense that its positive character embraces all differences in an inclusive harmony" (*ib.*).

This conclusion is based on the proposition that all appearance must belong to reality. Reality is not something apart which cannot appear; such a doctrine would lead to that absurd inconsistency, the thing-in-itself. Appearances exist, and they must be appearances of reality. Therefore, we may say of Reality that it embraces the whole of appearance, and combining the positive information of the criterion, add in such a way as to exclude contradiction. And, having reached this stage, there is apparently no limit to our ability to characterise reality with positive content, for every negation that appearance presents is an affirmation of reality. But every affirmation is an assertion of identity in difference, and it is this logical principle that constitutes my difficulty as I follow this argument, and my difficulty becomes intensified as I go on. When I think of reality, I must distinguish, to quote Mr. Bradley's phrase, the "what" from the "that," and it is this same necessity of thought that constitutes the unreality of appearance. Take the judgment—Reality is self-subsistent; clearly I distinguish here something that is not self-subsistent, and consequently excluded. Yes, I imagine Mr. Bradley to reply, but then also we know that the not self-subsistent, which we distinguish, is embraced by our subject—reality, because, as we have seen, Appearance is appearance of reality. But how? The reply I get is that we do not know how, we know only that it must be so. But surely unless we know how, the contradiction remains. The certainty that it is so is well enough; I doubt if anyone has really doubted it. Surely the puzzle is the how? And unless we know how, we pass on with an unresolved contradiction.

Our next step is the conclusion, Reality is a single whole—the Absolute. This is reached by the consideration that a plurality of reals is impossible, as plurality implies relation, and the real must be independent. The Absolute is one system. Independent reals are for us nothing. This concludes the first part of the argument, and the result thus far is summed up by Mr. Bradley as follows:—"Everything phenomenal is somehow real; and the Absolute must at least be as rich as the relative. And, further, the Absolute is not many, there are no independent reals. The universe is one in this sense that its differences exist harmoniously within one whole, beyond which there is nothing. Hence the Absolute is an individual and a system" (p. 144).

So far the result is formal and abstract. Can we fill up the

outline? Can we say anything about the concrete nature of the system? Yes, Mr. Bradley replies, the answer is—Experience. "The Absolute is one system, and its contents are nothing but sentient experience. It is a single and all-inclusive experience, which embraces every partial diversity in concord" (p. 147).

I most thoroughly agree with the argument here most lucidly stated, that anything that does not come under the general head of sentient experience is simply unmeaning. The Absolute may be much more than any feeling or thought that we know or may ever come to know, but it is more of the same nature. I raise no criticism on the point as to whether we could know anything that falls outside experience, an absolute partly or wholly outside experience is contradictory and unmeaning. But we here touch on a most important point in Mr. Bradley's whole position, namely, that by experience he means "sentience" and not "consciousness," and that the two are not synonymous. This is argued out in the chapter of this book that bears the title "Thought and Reality." But the argument is most concisely stated in *Mind* for April, 1893, p. 211.

In this article consciousness is defined as "the being of an object for a subject," and it is declared to be "not original, nor at any stage is it ever all-inclusive, and it is inconsistent with itself in such a way as to point to something higher." I will briefly notice the points of this argument as it is of extreme importance to the full understanding of Mr. Bradley's drift. (α) The inconsistency of consciousness consists in this that we have an object, a something given, and it is given to a subject. The subject is not given, if it were it would be an object, it is felt. Hence we have one term and a relation. But a relation with one term is self-contradictory, nor are terms ever entirely constituted by relations. And even in self-consciousness, where the subject is given as object, the difficulty remains, for it is given to a new subject that is not given. Consequently there is in consciousness a "more," and this "more" must be experienced or else be nothing, and therefore experience is wider than consciousness. (β) Consciousness is not original. Feeling is prior. "Feeling is a state without either an object or subject, it is immediate experience without distinction or relation in itself. It is a unity complex, but without relations." (γ) Even when consciousness arises, feeling does not wholly cease to exist. "Everything experienced is on one side felt, and the experienced is in part still no more than felt." It is on the felt background that the unity and continuity of our lives depends. "Our personal sameness consists in the ideal identity and the continuity of the experienced."

The gist of this argument I take to be that in consciousness we necessarily transcend consciousness and that larger whole which the transcendence of consciousness implies is experience. This single whole is feeling, which is immediate and logically prior to the distinction of subject and object which is consciousness. All distinction is relation, and relation implies terms, and the terms are feeling, which is given immediately and prior to distinction. I cannot then ask the question what is undistinguished feeling, not even when I want to answer nothing, because the question implies distinction, and when distinction arises immediacy is gone. And this is my difficulty; knowledge of the undistinguishable is knowledge of that which cannot be known, which is absurd. I try and utterly fail to present it to thought, because it is in the nature of the case unrepresentable. What then is that part of experience which falls beyond consciousness, I can give it no content, I can only say that it is unknowable, and to be unknowable is to be unmeaning, that is, to be nought. This is a crucial point of Mr. Bradley's whole theory, for this simple immediacy is reality, but on a lower plane, it is prior to distinction and thought, the Absolute is immediacy on a higher plane, which, in an all-inclusive whole, reconciles feeling and thought, thought and existence, will and desire.

Now to find the missing terms that consciousness requires, in *feeling*, that is, in a sense outside consciousness, seems to me quite unmeaning. It is no reconciliation of the contradiction of consciousness, because the terms as such are not feeling, and also the terms present are in exactly the same sense feeling as the terms absent. Then again the subject is not given as object, it is true, for then it would cease to be subject, but no object is given simply as object but always for a subject, I do not see by what right the subject is relegated to a sphere outside consciousness, it seems to me as much an element in it as the object.

The subject falls "partly beyond" thought. "I do not deny that reality *is* an object of thought, I deny that it is barely and *merely* so." What then is that part which falls beyond? It is "existence" as distinct from "idea." "Reflect upon any judgment as long as you please, operate upon the subject of it to any extent which you desire, but then (when you have finished) make an actual judgment. And when that is made, see if you do not discover, beyond the content of your thought, a subject of which it is true and which it does not comprehend. You will find that the object of thought in the end must be ideal, and that there is no idea which as such contains its own existence" (p. 169). Thought makes its own judgment that it is less than the universe, and this is not a self-contradiction. How then does this doctrine

avoid the contradictions and absurdities of the Kantian Thing-in-itself? I take the difference between Kant and Mr. Bradley to be this: Kant said reality transcends experience, Mr. Bradley says reality transcends thought, but does not and cannot transcend experience. So stated the difference seems fundamental, but I think it is misleading, for it seems to me that Kant meant by experience just exactly what Mr. Bradley means by thought, and though I do not mean to undervalue the advantage of correct statement yet it seems to me the two doctrines are essentially the same. It is of course quite fair criticism to represent Kant's thing-in-itself as standing apart and independent, out of relation to experience, for this was involved in the way he stated it, but to Kant the thing-in-itself marked the limitation of knowledge, and was the assertion of the necessity in thought of transcending that limitation. For what else could it mean. The matter of knowledge is Sense and the form of knowledge is Thought, but the matter is given, consequently we must imagine it to exist otherwise than under the form of thought, but such existence is unknowable. Now I say of Mr. Bradley's doctrine that this "partly beyond," in so far as it is beyond, this "existence" that is given to thought, in so far as it is not thought, is unknowable. And I do not see that this difficulty is got over by saying that thought is an element in a whole, and that the remainder of such a whole does not stand apart. How can we know what does not take on, so to speak, the form of thought, and how can anything be thought without exhibiting contradiction? This is the crux.

And in saying the Absolute is Experience are we indeed advancing our positive knowledge of it? The absolute is experience clearly, for the only possible alternative is, the absolute is nothing. But it is not experience as such. Appearance is experience, and all experience when analysed in the only possible way in which we can analyse it turns out to be appearance. To say experience is real is simple contradiction so long as I only know it as appearance. I am puzzled about the one and the many, I know there is contradiction, and I am convinced there is a solution, otherwise I should not be puzzled, what use is it to tell me the many are one, unless you explain and reconcile diversity and unity? Unity is not reality, and diversity appearance; both alike are appearance, and both in some sense are reality. But this constant expression of Mr. Bradley, "How we do not know," is a confession of failure in the crucial point.

The real, then, to take up again Mr. Bradley's argument, is experience as a single and all-inclusive whole. "To be real," he says, "is to be indissolubly one thing with sentience. It is to be

something which comes as a feature and aspect within one whole of feeling, something which, except as an integral element of such sentence, has no meaning at all" (p. 146); and the result so far is expressed thus: "The Absolute holds all possible content in an individual experience where no contradiction can exist" (p. 147). This is the theoretical part of the argument, the second part deals with practical considerations. "We have been resting on the theoretical standard which guarantees that reality is a self-consistent system. Have we a practical standard which now can assure us that this system will satisfy our desire for perfect good? An affirmative answer seems plausible, but I do not think it would be true. Without any doubt we possess a practical standard, but that does not seem to me to yield a conclusion about reality, or it will not give us—at least, directly—the result we are seeking" (p. 148).

With this I entirely agree, and with the conclusion Mr. Bradley comes to as to the relation between the theoretical and the practical standards: "If the intellect is contented, the question is settled. For we may feel as we please about the intellectual conclusion, but we cannot on such external ground protest that it is false" (p. 155).

The practical end is defined as "Individuality, the harmonious or consistent existence of our contents" (p. 149). This is not necessarily at variance with Hedonism, as practical perfection will carry a balance of pleasure. Assuming this practical end, our question is whether it is known to be realised in the Absolute, and Mr. Bradley's view is that such knowledge is at least not supplied by the practical standard.

This brings up the famous "ontological" argument. The ontological argument says, I have the idea of perfection, existence is included in the idea, therefore perfection exists. Mr. Bradley in this place is content with denying the applicability. Perfection may be simply theoretical perfection and not practical perfection, that is to say, the element of pleasure may be an addition incongruous, incompatible, and contradictory. It seems to me that the premiss, we have the idea of perfection, is open to doubt. Mr. Bradley says there is no doubt as to that; but if we mean a concrete, positive idea, I think there is very great doubt. I do not find that I can give any positive content to the idea of an absolutely perfect being; I can abstract from the imperfections of the finite, but that is not to give content to the infinite. In another connection, however, the ontological argument is admitted with an important qualification, viz., that real must not mean real-as-such. The idea of the Absolute and the reality of the Absolute are identical in the

Absolute, but the Absolute is not ideality-as-such nor reality-as-such.

The argument now proceeds as follows :—The Absolute is theoretically harmonious. A collision of perceptive elements, the clashing of idea with sensation, unsatisfied desire, unrest, discord, are incompatible with harmony. Therefore in the Absolute there are no unsatisfied desires.

How is this conceivable? The particular satisfaction of particular desires is manifestly absurd. If the struggle is not a mere struggle it must subserve a unity and a whole, taken in which, it is a struggle no more. Unsatisfied desires merged in a whole lose their character of discordance and so cease to be desires. But may there remain a balance of pain? To suppose so is to suppose the whole imperfect. If we hold the view that pain is caused or conditioned by an unresolved collision, which is a tenable but not absolutely certain view, then a balance of pain is inconsistent with harmony and therefore impossible. A balance of pleasure is possible, and if it exists will harmonise all the facts. The possibility of the Absolute resting tranquilly in pain is almost inconceivable, though the contrary supposition is allowed to be barely possible. With this modification we may conclude that the Absolute possesses a balance of Pleasure.

Here I must confess to complete bewilderment. I cannot conceive what is meant by the Absolute possessing pleasure or pain. If pleasure and pain are real as such, why do we want a doctrine of the Absolute? Here is reality ready to hand. But this is not intended. "Pleasure and pain it is obvious are not the one thing real" (p. 458). Are not pleasure and pain appearance, at least as much so as time and space, self and nature? Taken in themselves are they not pure abstractions, are they separable from the pleasant and the painful?

Let us assume that pleasure is positive, and that the contrary view cannot be reconciled with facts, still, can I calculate them and strike a balance? Can I form any conception of this resulting balance of clear pleasure or clear pain? And if I can then what is meant by saying the absolute must possess this balance? Is the conflict taking place outside the absolute, and the absolute only in some sort of way interested in the result. Why must there be a balance at all? May we not conceive both pleasure and pain as merged in the unity of the whole, subserving some purpose in the Absolute? Why must we conceive them as retaining their character, their as-suchness in the Absolute? The world of appearance is contradictory throughout, but the contradictions are not supposed to be solved in the absolute by the remaining balance. The very notion is

a contradiction. And what is gained by it? Does it solve the mystery of pain? It would hardly reconcile us to hell that we should know that there was one soul more in heaven.

Mr. Bradley's treatment of this part of his subject seems to me contradictory in itself. On p. 157, in the discussion as to whether the balance may be a balance of pain Mr. Bradley uses these solemn words "I will urge this so far as to raise a very grave doubt. I question our right even to suppose a state of pain in the Absolute." But on p. 535 I read "The idea of a painful universe in the end seems to be neither quite meaningless nor yet visibly self-contradictory. And I am compelled to allow that, speaking strictly, we must call it possible." Then in the whole passage we have been examining, pleasure and pain are treated as obstinate facts, as in some sort of way possessing a special claim to reality, as offering a peculiar kind of difficulty, but when I turn to the chapter on "The Absolute and its Appearances" I find their claim is rejected as completely as that of anything else in the world of appearance. "Pleasure and pain are antagonistic and when in the whole they have come together with a balance of pleasure, can we be even sure that this result will be pleasure as such?" And further on again, "They are but appearances and one-sided adjectives of the universe, and they are real only when taken up into and merged in that totality" (p. 459).

Having constructed our idea of the Absolute, the question now occurs whether we have a positive idea of it. "Do we at all know what we mean when we say that it is actual?" "Fully to realise the existence of the Absolute is for finite beings impossible. In order thus to know we should have to be, and then *we* should not exist" (p. 159). But it may be possible to gain an idea of its main features, for these are within our own experience and the idea of their combination is in the abstract quite intelligible. This knowledge being abstract and incomplete differs enormously from the fact. But it is true while it respects its own limits, and it seems fully attainable by the finite intellect. What, briefly, are the sources of this knowledge? In mere feeling, or immediate presentation, we have the experience of a whole. This whole contains diversity and is not parted by relations. It is imperfect and unstable and its inconsistencies lead us at once to transcend it. It serves to suggest the general idea of a total experience where will and thought and feeling may all once more be one. This unity felt below distinctions shows itself later in a kind of hostility against them. The relational form points everywhere to unity. The ideas of goodness and of the beautiful more or less involve the experience of a whole beyond relations, though full of diversity. These considerations, gathered into one, supply us with a positive idea, viz., the knowledge of a

unity which transcends and yet contains every manifold appearance. Not an experience, but an abstract idea which we make by uniting given elements. And the mode of union is given. We know what is meant by an experience which embraces all divisions and yet somehow possesses the direct nature of feeling. Our complete inability is no ground for rejecting it. If we can only realise it in the abstract our result is certain. Our conclusion is real knowledge of the Absolute, positive knowledge built on experience.

Such in the briefest outline is Mr. Bradley's account of the general nature of Reality. In criticising it, it is, of course, of the most special importance that one should make allowance for the extreme difficulty of expressing such a doctrine in language. When once our Absolute becomes a concept it loses immediacy and exhibits contradiction and ceases to be the absolute. The Absolute as a concept cannot be free from the contradiction that is inherent in thought. The Absolute that we know and speak about is appearance, not reality. The Absolute as a possible experience is reality. This is what I take Mr. Bradley's meaning to be when he says that we can only realise it in the abstract. And the ground of this knowledge is that we have in experience an element that is irreducible to thought—an immediacy of feeling. Mr. Bradley's statement of this ground seems to me open to serious criticism. "In mere feeling or immediate presentation, we have the experience of a whole. This whole contains diversity, and, on the other hand, is not parted by relations" (p. 159). The word *whole* is a logical term and feeling, as intended here is distinctly not logical, or to use a word invented by Mr. Belfort Bax, is alogical. If feeling is not an alogical element of experience, I fail to see the distinction between experience and consciousness that I have already noticed. If it is alogical or, what I suppose is the same thing, always and essentially particular, then it must be altogether unanalysable, its as-such-ness must be something quite inexpressible in language and thought. How can we found a doctrine on what takes place in mere feeling? At any rate is it not quite wrong to describe it as the experience of a whole and then to describe this whole as not parted by relations, as though we could have experience of a whole without experiencing parts. If Feeling is essentially particular, then we can say no more about it; to analyse it is at once to contradict its particularity. How can we say that in Feeling we have the experience of a whole, that the whole contains diversity and is not parted by relations and so on, if we mean by Feeling, immediate presentation as such. These are universals, and have meaning only for discursive thought. Is not "particularity" a relative term? Can it, any more than universality, stand apart? And if not, where is the difficulty? Feeling in its pure particularity,

in its *thisness*, not only cannot be described, as Mr. Bradley allows, but also it does not exist.

So far the Account of Reality we have reached is simply this: Reality is the Absolute, everything relative is unreal—is Appearance. Nothing within Experience is real as such, not even consciousness, only the Absolute is real, and the reality of the Absolute is unrealisable to finite intelligence. Now I must raise the question that I indicated at the beginning of this paper, is this the ordinary use of the word Reality, and, if so, is not Mr. Bradley's exposition of it in effect to render it an unintelligible and entirely useless concept? It seems to me that it is Mr. Bradley's consciousness of this criticism that has given us the chapter on "Degrees of Truth and Reality." A concept of Reality that rejects equally and alike everything that is relative, everything in fact that can engage our attention is of no use in everyday life, in science, or even in religion or philosophy. If it is true metaphysically, it is too abstract to throw any light on the various problems of philosophy. Beside the Absolute everything is equally unreal. "The Absolute considered as such has, of course, no degrees; for it is perfect, and there can be no more or less in perfection" (p. 359). But in the nature of the process of thinking truth for us can never be absolute, it remains conditional, because, as we have seen, thought consists in the separation of the "what" from the "that." "Our judgments can never reach as far as perfect truth, and must be content merely to enjoy more or less of *Validity*. By *validity* I mean that less or more they actually possess the character and type of absolute truth and reality" (p. 362). "Truths are true, according as it would take less or more to convert them into reality" (p. 363).

The Standard of perfection of truth and of reality is Individuality, and Individuality has two features essentially connected—internal harmony and expansion or all—inclusiveness. The degree of Reality is measured by the approach to the standard. "The truth and the fact which, to be converted into the Absolute, would require less rearrangement and addition, is more real and truer" (p. 364). Now, certainly, if this is meant seriously we cannot complain of the uselessness of the Absolute. For we take it about with us as part, I presume, of our mental equipment to judge the degree of truth and reality in the world of appearance. But what has become of the test of self-subsistence, to talk of more or less of self-subsistence seems absurd. We have to measure, Mr. Bradley tells us, the interval that separates any fact from self-subsistence in order to find its degree of reality. Now, even if this is a possible process, it is a misnomer to call it a degree of reality. But is it a possible process? The account of Reality as consisting in individuality, and individuality as

exhibiting harmony and expansion is quite intelligible, but has it any necessary connection with this doctrine of the Absolute as a standard? It seems to me that it is the exigency of connecting the absolute as the one real, with a doctrine of reality of practical utility that has led to this mode of statement. Expansion clearly admits of degrees, harmony we are accustomed to speak of as more or less, but a more or less of self-subsistence or absoluteness seems absurd. And I cannot see how, if we accept the account of reality we have been examining, we can test by it the degree of reality possessed by the relative. Everything is either absolute and real or relative and unreal. How can we judge by it the comparative reality of the hundred dollars thought of and the actual hundred dollars in the pocket. Harmony and expansion may be relevant but surely to imagine that we go through a process of calculation of the amount of alteration necessary to convert either into the absolute is absurd.

I agree with Mr. Bradley's view of the shortcoming of other commonly accepted standards, which I will briefly notice. (1.) That Reality is Sense-perception. *Esse is percipi*. The failure of this standard is shown in the fact that no perception ever has a character contained within itself. In order to be fact each presentation must exhibit identity or self-transcendence. And on the other hand the less a character is able to appear—the less its necessary manifestation can be narrowed in time or in space—so much the more is it capable of both expansion and harmony, two features which are the marks of reality. (2.) That Reality is pure thought. But if the world of thought be excluded wholly from the serial flow of events it is limited externally and is internally discordant. To attempt to qualify the universe by our mere ideal abstract, and to attach it to the Reality that appears in perception is to bring in obvious Confusion. It is the co-presence everywhere in all appearances of fact with ideality that is the one foundation of truth. (3.) That Reality is existence. Reality must exist, but it is more than existence. It includes content. Existence is a form of Appearance of the Real, not reality, which is all-inclusive, the absolute.

Here I must conclude this paper, quite conscious that I have given but a maimed account of the most interesting treatment of a most interesting problem. To give a thorough account would necessitate following carefully Mr. Bradley's application of it to the main aspects of the world, and would, of course, far exceed the limits of a paper. I hope I may have succeeded in making the outline clear. My own opinion with regard to it that I have tried to justify is this, that if we confine the word Reality to the Absolute, then

we have an abstract barren concept that can throw no light on any problem of experience. In principle it may be impossible of refutation or even of serious doubt, but it is empty and valueless. Of this attempt to connect it with the various problems of experience, to enrich the concept by endowing it with the diversity of the world of appearance it seems to me that it fails in the crucial point or, at any rate, it never succeeds in being more than an assumption.

ON THE ETHICAL INTERPRETATION OF LIFE AND NATURE.

By A. BOUTWOOD.

I AM desirous this evening of inviting your attention to a question which we have often incidentally touched upon at meetings of this Society, but which, so far as I know, we have never formally discussed as a whole. Stated briefly it is this: Is it possible to give such an interpretation of Life and of Nature as shall at once satisfy our moral aspirations after goodness, and justify our moral consciousness of right and wrong,—of a morally better and worse in human affairs,—and, also, those deeper feelings of duty and of sin, which—more particularly the latter—have not infrequently received but slight consideration from those who have from time to time spoken in the name of moral philosophy.

In a certain sense, of course, all systems of philosophy which have been at all completely elaborated have given us ethical interpretations of Life and Nature; in the sense, that is, that they have professed to harmonise the theories by which they have sought to explain the realm of ethics, with their theories concerning the rest of existence, and to give such an account of the non-ethical realms of thought and observation as shall be in agreement with their view of the content of the moral consciousness. In most cases, however, the centre of philosophical interest, and the starting point of philosophic thought in these systems has been in the non-ethical region—in ontology, or in natural science, so that they have been prone to look upon ethics as a comparatively unimportant field of almost residuary phenomena, which can be adequately examined by the light of doctrines and principles regarded as already sufficiently established elsewhere. Hence, these systems of interpretation, although they deal with ethics, and although they profess, each for itself, not only

to give an account of the entire content of our moral consciousness, but also to give such an account of the rest of existence as shall be consistent and vitally connected therewith,—hence, I say, these systems of interpretation, because they make their doctrines concerning the content of the moral consciousness essentially dependent upon doctrines drawn from outside that consciousness, do not appear to deserve the distinctive appellation of ethical. Not until the predominant interest that inspires and directs the interpretative thought becomes distinctively a moral interest, not until the moral consciousness itself is regarded as the central point of illumination and certainty, from whence we proceed to explore the world around, do we come within sight of a truly ethical system of philosophy.

It is no new thing for men to find their chief interest in ethics, rather than in ontology, or in natural science, and there are many belonging to this Society who know, far more fully and accurately than I, how clear is the witness borne by the history of philosophy to the share moral considerations and influences have had in determining the direction of speculative thought in the past. Neither is it by any means unprecedented for men to fall back upon the world of practice—upon the world in which moral distinctions claim to be predominant—for the certitude and content they have failed to attain by the creative or analytic activity of the speculative intellect, or by observation of the human society of which they form a part, or of that strange world of natural being and becoming which surrounds them. None of these things are without precedent, none can be entirely unknown to even the occasional student of the history of philosophy. More significant, however, and, perhaps, not so familiar, is the fact that men are found who not only repose upon the moral consciousness as the seat of a practical certitude which they seek in vain elsewhere, but who find in the facts which there come to them with intimate assurance of reality, the suggestion and forthshadowing of principles and beliefs which they not only use as the basis of a theory of ethics, but which they are prompt to carry over to essay the interpretation of that enigmatic world of doubtful appearances which lies beyond the threshold of their moral consciousness, but which yet, in a most real and practical sense, limits and conditions their moral activity. For men such as these the nearest reality and most certain truth lies in the domain of ethics, which thus becomes the source of a body of primary doctrines—perhaps we ought rather to say “of primary convictions”—which furnish the principles and standards by, and with reference to which they seek to interpret not only the ethical domain itself, but also the non-ethical facts of their own psychology, and of human society, and the seemingly yet more alien facts of the natural world around.

Now what shall we say to such an attitude and disposition? Other standards of judgment and methods of interpretation have had their day, and we can read their results in heavy tomes of laboured thought and ingenious speculation,—what are we to say to these new standards and this new method? Hitherto the great majority of those who have essayed these problems of interpretation have placed their chief and foremost, if not their only trust in the high and dry light of the understanding, and we see the witness to their failure in the ceaseless dialectic of the conflicting schools to which these repeated attempts have given rise, and which, as yet show no sign of arriving at anything like a settled body of agreed doctrine,—what prospect of success, then, have these others, who, abandoning traditional guides and time-honoured methods, attempt a new solution by new means?

First of all, however, the mere fact of such an attempt being made seems worthy of more than passing notice.

Much of modern thought, much of modern English thought, has been largely influenced by the methods and maxims of natural science. Hence we have its marked intellectualism, its distrust of abstract thinking as a means for the discovery of truth, and its strenuous and only too-successful effort after that “positive” or “objective” method which threatens or promises to convert psychology into a subsidiary branch of physiology, and to exclude metaphysics from the category of permissible studies. Now, it is not to be supposed that a philosophy which is more concerned with the natural history of ethics than with ethics itself, and which regards the secret of right and wrong, of sin, and of duty, as fully revealed by reference to a past personal or ancestral experience of the hedonistic or hygienic results or concomitants of conduct,—it is not, I say, to be supposed that a philosophy such as this should take primary and pre-eminent cognisance of the hidden facts of the moral consciousness,—of those secret things of the spirit of which some must seem to it but the emotional idiosyncrasies of exceptional natures, and of which none can seem more than the concomitants or consequences of past experiences of animal ill- or well-being, which, as such, according to it, would find their proper place and valid explanation in such a natural history of man as should be nothing more than a subordinate branch of a general natural—*i.e.*, physical—history of the universe. If, however, we cannot hope for this,—if we cannot reasonably expect this pseudo-scientific philosophy to bestow its earliest and most practical thought, and its dominant and most fruitful care, upon facts it thus lightly appraises, much less can we expect that it should take those facts as suggestive of a new standard of philosophical judgment, and of a new method of philosophical interpretation. Neither can we legitimately think that a philosophy which looks upon the “soul” as nothing

more than a name by which to denote a certain number of conscious states,—states which although trivial and insignificant enough, do nevertheless exist,—and which retains the word only for practical convenience, and, perhaps, to a slight extent, out of tender consideration for the susceptibilities of weaker brethren,—we cannot, I say, legitimately think that such a philosophy—which, strictly speaking, cannot be said to possess a psychology, that is, a science of the soul, at all—should make the existence of a free spirit in man one of the cardinal features of its doctrine, or should find in the needs and aspirations of that spirit, and in those higher moods of it which transcend description and defy analysis, a direct way of access, either by an insight, which is scarcely less than visual, or by the aid of postulates which are held to be necessary, if not inevitable, to higher truth than any it could discover in the ex-animated nature with which alone it is conversant, and to higher reality than any that same nature has revealed to it.

Yet all that this school of philosophy does not do, and cannot be expected to do, the ethical philosophy of which I am speaking to-night does do. It is scarcely possible to state the contrast between the two schools too strongly. They differ in starting point, in method, and in aim, and they differ widest of all in result. The one starts from the facts which the so-called objective and positive sciences take cognisance of,—from the facts, that is, of the biological and abiological sciences, and from those facts of human nature which are apparent to a man observing other natures than his own, observing them, that is, as indeed he only can do according to the positive doctrine, from without. In almost antithetical contrast to this, the other finds its initial and principal interest in the facts within, in those very facts of which the former cannot take direct cognisance. The one proceeds from the observation of external objects and events, by induction and ratiocination, and professes to take into account nothing but facts certified by observation, and those primary laws of thought which, although it may hesitate or refuse to regard as universal and necessary, it inevitably uses as ultimate and certain,—at least, as empirically such. The other equally avails itself of observation and argument, but these are employed, not only on the phenomena of the world without, but, also, and primarily, upon the facts of the moral world within, and these subjective experiences, either in their own nature or by the external facts they are held to postulate or reveal, furnish the concrete principles and standards by and with reference to which the world which lies beyond the immediate domain of ethical feeling is interpreted. Precisely as the objective method of interpretation fetches its practical principles and standards from without, so the ethical finds its within. The one concedes to the

moral nature of man only an attenuated, subsidiary, and almost accidental existence, and insists that, such as it is, it shall be interpreted in the light of the non-moral nature around it. The other, rightly relying upon intimate personal consciousness, recognises the full dignity and significance of man's moral nature, and contends that the true philosophy of the universe must be such as shall satisfy its aspirations and justify its claims to the uttermost. Hence, while we may, perhaps, not unfairly describe the aim of the one school of interpretation as the satisfaction of intellectual curiosity,—or, in other words, as such a system of thought concerning Nature and concerning Life as shall satisfy the last inquiries of the speculative intellect,—the aim of the other may, perhaps, be justly represented as moral satisfaction,—as such a faith and certitude concerning Man and Nature as shall permit whole-hearted effort after the moral ideal, unhindered by speculative questionings, and shall justify the hope for the ultimate achievement of it. As to the divergence of result, I think the last analysis would show that naturalistic philosophy empties the moral life of its deepest significance, deprives it of its most powerful incentives and supports, and makes it, at the best, a matter of social police or hygiene, resting upon secular self-interest, while it can find nothing in Religion but a meaningless and superstitious worship of some delusive phantasm of thought, or of some imagined postulate of uncriticised emotion. The practical results of the ethical doctrine stand in such marked divergence from all this, that they hardly need drawing out in detail. Some of the points of contrast are obvious and apparent enough, others, and perhaps some of the most important and significant, will claim our attention later on. One thing only will I say before proceeding. Look at the social condition of Europe to-day,—at the spirit of change and unrest everywhere apparent, owing to the sudden and, too often, violent entry into active social and political life of those dark crowds of unnamed workers whom hereditary misusage has, at last, goaded into insurgent discontent, and who are now claiming, with no uncertain voice, to be co-ordinate factors in that society which has hitherto been comfortably content to use them as its mere instruments,—look I say, at the state of Europe to-day, and ask whether naturalistic ethics can hold out any tangible hope of social salvation. It professes, it is true, to embody a doctrine of social well-being, but the thought that logically lies at the bottom is individual self-interest. Some of those who advocate it are, it is true, men whose characters are beyond suspicion, for they have been formed by those many high and subtle influences which, more than anything else, differentiate the spirit of modern Christendom from that of ancient Rome and Greece, and of the hard and apathetic East, influences of which

naturalistic philosophy can take no adequate account, of which, indeed, it scarcely tries to take account, but which have entered into and shaped the texture of all that is best in modern society, and which act upon us whether we will or no, and whether we recognise them or no. These men have a moral nature, and follow rules of moral conduct of which their philosophy can give no account, and which they would not have and follow if the universe were indeed constituted and ordered as they imagine it to be, and they will not go far wrong. Introduce, however, their soulless creed to the new social orders, to those who have unhappily grown up under the shadows, and not under the light, of modern civilisation, and what would happen? The humane and almost sympathetic guise it is made to wear in our text-books, as the guardian and support of social health and order, would soon, I fear, be stripped off, and men would use it, as, indeed, they would have, for aught that it could effectively say, a perfect right to use it, as a doctrine of private advantage. Then would begin a Saturnalia of militant selfishness, which would illustrate on a terrific scale, and with disastrous and horrible emphasis, the cynical words of our old English thinker, "Man is a wolf to man." Society, however, is not a horde, and the real bonds of society are not those of which a naturalistic philosophy of life can take adequate account, and it is not the least value of the contrasted ethical doctrine, at least, as I shall endeavour to show, when fully developed, and drawn out into its complete significance, that it fully and effectively preserves the moral value of social life, and sets before us a positive conception and a definite ideal of progress, not only for individuals, but also for nations and communities.

It will, perhaps, be said that I have availed myself of an exaggerated antithesis, in thus placing the ethical philosophy of Nature and of Life in opposition to what will probably be called the baldest and crudest interpretation of naturalistic thought, and that if one is not prepared to accept the extreme doctrines of the so-called scientific school, there are other more or less accredited systems of thought at hand to save one from going to the antithetical extremes of the ethical doctrine. To a certain extent this is true, but more so, perhaps, in appearance than in reality. There are, it may well be, not many who would accept the account I have given of Naturalism as true of anything but the extreme forms of its doctrines, but, for my own part, I think that a careful and thorough analysis would show that not a little of contemporary thought which is seemingly more acceptable in its conclusions, really involves or leads up to that more "advanced" teaching which it professes to repudiate. Then, again, I chose this particular series of strong contrasts in order to set in as clear a light as possible what I conceive to be the essential

character of the ethical philosophy, and I did this with the less hesitation because I felt that the marked antithesis thus set out did but give adequate suggestion of the change in the method and aim of philosophy, and in the primary practical convictions with which it starts, that the ethical doctrine seems to involve. Then, again, although it is doubtless true that Naturalism is not the only available philosophy, yet, in so far as other systems are not mere variants of Naturalism, not differing from it in anything essential to my present purpose, they either exhibit various forms of "Intellectualism," which is scarcely less contrasted with the ethical doctrine than Naturalism, and which, indeed, possesses more than one essential feature in common with it, or else they involve, some more or less implicitly, and some more or less explicitly, precisely those distinguishing characteristics of the ethical philosophy to which it is the object of the present paper to invite attention.

The history of philosophy affords many noteworthy instances of philosophic doctrines being superseded, or more or less profoundly modified or transformed, at the suggestion of criticism inspired by difficulties of a purely intellectual order. Now, ethical systems of philosophy seem to arise in quite another way. The need that inspires them, and to which they bear witness, is not intellectual, *i.e.*, not predominantly and characteristically intellectual, but moral. They challenge, it is true, any interpretation of the universe which they may find opposed to them, they dissent, for instance, as strongly as possible from the teachings of the naturalistic school, but why do they do so? Not, primarily, because some intellectual difficulty prevents assent to the doctrines to which they take exception,—there may or there may not be such a difficulty, but even if there is, it is not *this* that quickens their thought and gives it its distinctively ethical character. Their real origin is to be sought elsewhere, in the urgent call, that is, of the moral consciousness for a treatment radically different from that which the doctrines against which they protest can grant. An intellectual difficulty, so long as it remains intellectual, can only give rise to a new system of intellectual interpretation,—the complete change of attitude and aim involved in the ethical philosophy can only arise out of pressing moral need.

It is for this reason that the protest against Naturalism takes a more critical and ratiocinative form than the protest which ethical philosophy also makes against Intellectualism. The protest against both is a moral one, inspired by moral needs which clamour for recognition and satisfaction, but as Naturalism is a definite body of more or less fully elaborated doctrine, the protest against it has to be immediately accompanied by criticism and argument. Intellectualism, however,—in the sense in which I use the word to-night—is not such

a definite and detailed body of doctrine, it is merely the assertion of a principle,—the expression of a certain speculative attitude. Perhaps its true nature will be more readily apparent if I give it its more familiar name of Rationalism. It asserts that the light of Reason is the only guide to certain truth, and that no proposition should be allowed to pass into philosophical currency until it has established its veridical character at the bar of Reason. Hence, it professes to be the uncompromising enemy of postulates of every kind, even of those everyday postulates of common sense, as they are called, which are pre-supposed in the ordinary practical activities of mankind. Professing to walk by an intellectual light, it holds out the aim or promise of a completely elaborated intellectual system of doctrine concerning man and nature, every part of which shall be able to justify itself in the clear light of the theoretical understanding. Now, it is conceivable that Rationalism, even of this most undiluted sort, *might* give such an account of the problems of life as should, at one and the same time, satisfy not only the exigencies of what it calls pure Reason, but also the practical needs of the heart, and if it were to do so, there would be no occasion for an ethical philosophy to arise with its appeal to principles and standards of which Rationalism, as such, does not take immediate cognisance. As a simple matter of history, however, Rationalism does not make good its claims, and because it is the affirmation of a general doctrine of the widest inclusion, while Naturalism, in the form in which we have been considering it, is rather a particular application of general doctrines, the protest against the former has to be more radical and far-reaching than that against the latter. Historically, I think, it takes the form of Scepticism.

Now, it is possible, no doubt—theoretically, at least—for a man to remain in Scepticism, and, although some are sanguine enough to assure us that such a thing is practically impossible, we must all of us surely know of cases in which Doubt—I do not say Negation, but Doubt—seems to have so penetrated into the inmost spirit of the life, as to deprive it alike of intellectual insight and of moral purpose and certitude, and to leave nothing but a vain succession of trivial incident to wear away the lingering years, until the meaningless tale of them is told, and he, who for anything that he knows to the contrary, came out of the nothingness of the past, passes into nothingness again. This is, perhaps, the nearest approach to universal Scepticism that human experience knows, and in the presence of one so unhappy as to illustrate it in his own person, one instinctively feels that the saddest and most hopeless feature of his fate is not his denial or doubt of the light of Reason, but his moral distrust. We may pity him, if we will, because the world around

him seems dark and silent, unilluminated by any ray of interpreting light, whether human or Divine, and unresponsive to the eager and continual questionings of men, but a deeper pity must be due to that fatal paralysis of doubt which holds in check the highest springs of action, and kills the noblest impulse of hope,—to that darkening of the inward eye and that deadening of the inward sense which empty the experience of right and wrong of its deepest meaning and highest value, and leave it nothing but an idiosyncrasy of the individual life which can but cheat the heart with phantom hopes and mock it with empty promises. We feel, somehow or other, that even if purely intellectual doubt should remain, yet if practical moral certitude and energy could be restored to him, the greatest need of his life would be met. Now, this, perhaps, is more significant than at first appears. Why is it that, at the instance of practical human sympathy, we assign this pre-eminence to purely moral factors? If the moral certitude and energy we desiderate for him be but new and more subtle forms of illusion, or if they are purely and simply emotional states which convey no trustworthy guarantee as to the actual order of external existence, then is our pity but cruel, and we, in our turn, are but mocking his need. What, then, is the truth that our instinctive feeling thus foreshadows? Look at the same problem from another point of view. Although, in individual cases, Scepticism thus takes almost complete possession of the life, yet in the majority of cases it happily confines itself to the domain of speculative thought, and does not touch the essentials of the moral life. Hence we have this seeming paradox, that, not infrequently, men who distrust the elaborative activity of speculative thought, and who have ceased to hope for purely intellectual solutions of the problems of Life and Nature, remain content with the practical certitudes which meet them in the moral consciousness and in the practical effort after the moral life. They do not occupy the standpoint of ethical philosophy, for they do not make their moral assurance the basis for any system of interpretative thought which might take the place of the forms of Intellectualism from which they have turned, but those moral assurances they do actually hold and act upon, sometimes with a devotion and heroism which testify, with the most effective of all eloquence, that the technical resources of their creeds are far from being an adequate test or measure of the practical possibilities of their natures.

Now, what is the explanation of all this? What are we to say to the instinctive trust of our own sympathy in the certitude of the awakened conscience,—in the practical certainties met with in the field of moral experience? And what are we to say to the same trust as we find it historically exhibited by those who, although

turning in doubt, if not in despair, from all the teachings of the schools, yet find in the same deliverances of conscience the assurance that can impel them to action and redeem their lives from emptiness?

It is possible, no doubt, for adverse criticism to reply that the trust is delusive, but that which I have called the ethical philosophy of life is pledged, by its very profession, to the precisely contrary view. Now, what can it allege in defence of it?

First of all, however, let us look a little more closely at the position occupied by the ethical doctrine of existence. It asserts that, as a simple matter of fact, men do find practical assurance of reality and truth in the domain of the moral consciousness,—a practical assurance which is sufficient to inspire and to justify moral conduct. It does not simply affirm a psychological fact, and assert that men find a feeling, a *mere* feeling of certitude in the moral consciousness, it goes further and contends that that subjective feeling is to be taken as a key to the interpretation of the world beyond the moral consciousness, so that we are justified in asserting of that non-ethical realm such an actual objective constitution as shall render possible the attainment of the moral ideal. This, if I understand it aright, is the essential position of the ethical philosophy of existence, it regards the assured facts of moral experience as, in some way or other, indicative of the actual structure and course of the universe, so that we are justified in taking the moral consciousness as a certain light by which to interpret the world beyond consciousness. The moral consciousness, as consciousness, is, of course, simply a collection of states of feeling, or, rather, perhaps, of forms of experience, and these particular states of feeling or forms of experience are neither more nor less valid than any other of such states or forms, and whether states or forms of one kind or another happen to be, in any particular case and at any particular time, most potent in determining conduct and belief is simply a curious and accidental fact of individual psychology. Yet, notwithstanding all this, it is to the moral consciousness that ethical philosophy appeals to carry us outside the narrow circle of mere subjective feeling. Now, feeling, simply as feeling, will certainly not do the work that ethical philosophy asks of the moral consciousness, yet, if that philosophy is to be justified, feeling must, in some way or other, do that work, for it is to feelings of a particular sort—to those, that is, that constitute the moral consciousness—and to those alone, that that philosophy appeals. Where, then, is the way of escape from this subjectivism? The answer of ethical philosophy is plain. It regards the subjective states, if not as actually cognitive, yet as of such a nature that they directly reveal objective and external reality. They are feelings, and yet more than simple feelings;—experiences,

and yet more than mere experiences,—precisely as those other experiences that give us our everyday acquaintance with an external world of things are experiences, and yet more than mere experiences.

Now, the question which at this point I desire to submit to you is this,—Can ethical philosophy justify this position without ceasing to be merely ethical philosophy?—without, in other words, becoming distinctively religious? Personally, I do not think it can.

Let us, however, before pursuing this branch of our inquiry, have some practically sufficient declaration as to the meaning of our terms. By Religion, then, I understand actual experience of spiritual truth and reality,—in theological phrase, actual communion of the soul with God, and by a religious system of philosophy I mean a system which not only takes full and free cognisance of the facts of religious experience, but which treats them as primary and sovereign. When, then, I ask whether or no ethical philosophy, if it is to accomplish all that it sets out to accomplish, must not cease to be distinctively ethical, and become distinctively religious, I do not suggest that it must introduce into its system of thought, as from some foreign source, certain propositions relating to God and the soul, to nature and to man, which shall, as it were, rectify *ab extra* the teaching of experience,—but that it must avail itself of that highest and most enlightened form of experience that we call religious, and must accept it as a revelation of an external order precisely as it was willing to accept the lower and less complete experience of the ordinary moral consciousness as such a revelation. Put into other words, my question is this,—Must not the moral consciousness, before it can be and do what ethical philosophy requires it to be and do, advance to that higher and fuller type of consciousness called religious?

In thus introducing the religious factor I am, therefore, but widening the appeal to experience. I do not seek to bring into philosophical inquiry conceptions or doctrines derived from a source of which philosophy cannot take cognisance,—in more ordinary phrase, I do not seek to determine the course of philosophic thought by the arbitrary interpolation of theological dogmas,—I simply say that, beside the ordinary moral consciousness or experience to which ethical philosophy appeals, there is another kind of experience, which men call religious, and which, after all, is but a higher and fuller form of moral experience,—and that this, also, must be consulted before we can state our final positions.

As a necessary part of our inquiry, then, let us turn for a moment or two to the new factors thus introduced. What is religious experience, and to what does it bear witness? Then, these questions having been answered, if we can find in the nature or content of that experience the conditions of legitimate and valid certitude, we

may perhaps be able to work our way back into the domain of ethics, and to show how ethical philosophy, by becoming a distinctively religious philosophy, and by that means alone, can adequately accomplish the task it proposed to itself at the outset. Stated very briefly, then, religious experience is an experience of the intimate communion of the soul with God. It not only gives us the idea of God, it assures us of the existence of God, and, moreover, the God it thus makes known to us is not One dwelling afar off from the world of men and things, unmindful of the sigh of human aspiration, unmoved by the cry of human woe, but One who abides in closest and most intimate communion with us, as the Guide, the Light, and the Strength of our life. You ask me to prove or to demonstrate this. I reply at once that I cannot. The experience must stand in its own strength:—if it cannot, neither argument nor demonstration are available to support it. In experience of this kind, in fact, we touch ultimate ground, and the illuminative certitude which is part of the experience must be sufficient in itself to support the whole weight of our belief. We must not, however, think of this certitude as merely subjective. This it is very far from being. It is not that we are certain that we have a particular experience, or that that experience claims to possess a particular character. It is this, but it is something more than this, for it goes beyond the mere guaranteeing of a particular experience as an actual incident of the inner life, and declares that that experience really is what it professes to be,—a witness to objective and external fact. Hence, our certitude is not only certitude concerning ourselves, and our own states, it is likewise certitude concerning existence other than our own,—it is, in fact, a light which shines not only within but without, and assures us that the experience of reality is what it claims and appears to be,—actually an experience of reality and not a delusion. From the very nature of the case, then, neither proof and demonstration can be available. In strictness of speech, I suppose, proof always has reference to processes of inference,—it is essentially dialectical and ratiocinative. Therefore, it is only practicable in the case of derived or mediate truths, for only in the case of those are we able to point to an antecedent chain of evidence which admits of being tested, or to construct a syllogistic argument which shall terminate “Therefore, it is so,” or “Therefore, it is not so.” If, however, what has been said concerning the primary doctrines of Religion be true, the certitude we have concerning them is immediate and underived, and is, therefore, in simple verity, *supra logicam*, for logic can only deal with antecedent facts and arguments, and here we have nothing antecedent, the certitude being sufficient for itself and ultimate. Proof, therefore, would seem to be impossible. It is, of course, conceivable that

demonstration might still be open to us. Now, this I take to consist in showing, that is, in making manifest to the apprehension, that the object affirmed to exist really does exist, or that it actually does stand in the relation in which it is affirmed to stand, or does possess the qualities it is said to possess. We demonstrate to a man that X exists by showing it to him. It is, no doubt, conceivable that, if you will pardon the phrase, we might demonstrate the existence of God to an unbeliever by showing him God. This, however, is only another way of saying that we could demonstrate the truth of Theism by making him a Theist. To turn a man from negation or doubt to a living faith in God is, however, anything but an easy matter, and when it can be accomplished it only consists in awakening within the breast of the convert the same subjective certitude that possesses and illuminates our own. Hence, demonstration, even if possible, would simply be an appeal on behalf of a subjective and self-sufficient certitude in a particular individual, to similar certitude in another individual.

Before proceeding further I should like to make two very brief explanations. The first is this:—I have carefully endeavoured to avoid committing myself to the doctrine that in this religious experience we can properly be said to *know* God, for that would raise questions not wholly of a philosophical character, and not germane to our present inquiry. I simply urge that in religious experience we have certitude concerning God. The second is this,—I do not, here and now, draw any distinction between natural and supernatural Religion. In a certain and very real sense all Religion is natural,—in another and also very real sense, it is all supernatural, and even though certain elements of our Religion may come to us as the result of Revelation, still, in the last analysis, the truth of that Revelation must be manifest in precisely the same way as the truth of Religion itself, that is, in the light of a subjective certitude.* Now, it must not be thought that Religion suffers from any special disability because it rests upon such a ground as this. In the last

* In passing I would observe that if Revelation comes in historical form and embodies itself in literature, observances, institutions, or laws, the critical study of these, even though it cannot properly be said to corroborate an inner certitude or even to widen the ground of it, will at least increase the strength and freedom of our assent. Moreover, we are so prone to read into the message of experience—whether secular or spiritual—far more than it really contains, that such external reference may prove of the highest value in correcting our first and uncritical interpretation of that message. Indeed, when we consider the strange excesses to which merely personal persuasion of Revelation has at times led men, we shall be in a little danger of esteeming too lightly such external and historical witnesses to the content of Revelation.

analysis it could, I think, be shown that all our knowledge and belief rests upon a precisely similar foundation. Certain it is that our only knowledge of reality—even of that secular and every-day reality with which the natural sciences busy themselves, and with which practical men regard themselves as conversant,—certain it is, I say, that our only knowledge even of that order of reality, comes to us in an experience which is sufficient for itself, and which lies beyond demonstration and proof not one whit less truly and completely than the experience which brings us religious certitude. Stated broadly my position is this,—experience of a certain sort is a revelation of external reality, and the certitude which is an integral part of it is valid, sufficient and ultimate, and is to be trusted whatever may be the order of reality—whether spiritual or physical,—to which the experience relates.

From a personal and subjective point of view, then,—and it is to this that all adequate analysis must, in the last resort, lead us,—there does not appear to be the slightest difference between the ultimate grounds of our assent to the first propositions of religious thought, on the one hand, and to those of science and of every-day knowledge, on the other. Whether a fact be “secular” or “spiritual” it is only in the inner experience of the individual that the tokens of its presence can be manifested, and only there that certitude concerning it can be found.

It will, however, probably be urged that, whereas the appeal in matters of secular fact is often to an experience which is practically universal, the Theistic appeal can only be effectually made within a limited and relatively small circle, and if addressed to those beyond that enclosure, will meet with no response. With no response? Perhaps, but silence is not negation, and the fact that a certain experience is shared by only a limited number does not affect the character, which it may otherwise possess, of being a test and revelation of reality. A asserts in good faith that his experience reveals to him the existence of a certain reality, X. Now, this statement can never be refuted by the mere counter-assertion that B's experience does not contain a similar revelation. Suppose it does not, does that invalidate the testimony which actually is borne by A's? It may be quite possible to show why it is that B's experience is, in this particular, poorer than A's, but, even if it is not, A's certitude really is certitude, although B does not participate in it. A deaf man knows nothing of sound, nor a blind man of light, but sound and light are surely real? A doctrine which expresses an alleged fact of experience, and I would submit to you that the primary doctrines of Religion are of this character, can only be successfully met by showing, *if it be possible*, that an actual experience of reality has

been misinterpreted, or that the particular form of consciousness which is the indication of objective reality was not present in the experience which is put forward as the ground of the doctrine. It can never be subverted by the mere statement that, in the experience of some other person or persons, the fact which it alleges is not similarly made known. The mere absence of evidence can never be a sufficient ground upon which to build adverse criticism.

As a matter of fact, however, the appeal to universal experience is frequently made, if not as to a court of last resort, at least, as to an independent source of confirmatory opinion, or, rather, of similar affirmation, and it is found to be a by no means ineffective instrument of debate in the somewhat crude dialectic of the popular forum. Nor is this the only value that attaches to it, for, in cases in which it yields a positive result, it shows the appellant that that which he affirms is no mere peculiarity of his individual experience, is not due to any idiosyncrasy of his personal constitution, but is similarly affirmed by every one of his fellows. Now, it is necessary fairly to face the question whether such an appeal is possible to those who profess a living Theism. If not, then, in the estimation of the world at large, there will be no available means of distinguishing between the confident assurance of their faith, and the delusive certitude which accompanies hallucination.

The *consensus hominum* is that which, according to the general opinion and practice of our time, raises a belief or an assertion from the rank of a purely individual persuasion—which may as well be the outcome of insanity, as of sanity—to that of a generally received and practically accredited truth, and if it could be shown that a personal belief in things unseen and eternal is not supported by any such auxiliary body of concurrent and corroboratory opinion and belief, then would the adherent of such a faith find it difficult to persuade the world around him that the higher vision and clearer insight which he claimed was, indeed, the avenue to eternal truth, and not the channel of a pitiable delusion.

Is, then, such an appeal to a community of experience possible on behalf of Religion? To ask the question is almost to answer it. Most assuredly it is. I do not say that the experience to which we can appeal is, strictly speaking, universal,—one common to all the sons of men in every age and in every place,—but certainly it is wide enough to answer every purpose which the appeal to a common experience can legitimately be made to serve.

Such, then, is what I conceive to be the nature of Religion, and such the ultimate ground upon which it rests. Let us now ask what is the result of applying religious conceptions to the interpretation of Nature and of Life. I say “of Nature and of Life,” but, in strict

propriety of speech, the order of the two nouns in this phrase ought to be reversed, for the primary conceptions of Religion have a far more direct and intimate concern with the life of man than with his material surroundings. In the practical life of every day it is the world of things which appears to us through the veil of experience, in that hidden life of the soul in which Religion has its home, the reality which meets us is spiritual and not material. Hence, Religion has much to tell us concerning God, and concerning the human soul, for it is with these that it has primarily to do, but about Nature it says but little, for the world of Nature has no direct or essential connection with that spiritual experience out of which Religion grows, and with which it deals. Hence a philosophy based upon Religion is a philosophy of Life, first of all, and only secondarily and, as it were, incidentally, a philosophy of Nature.*

What, then, is the religious philosophy of life? The key to it is, I think, to be found in those well-known words of St. Augustine, "Thou hast made us for Thyself, and our hearts are restless until they rest in Thee." Man was made in the image of God, and his true content is perfect communion with Him. It is true that the Divine likeness has been sadly marred and blurred by sin, but the essential character of the human spirit has not been changed, and now its supreme duty, and the path to its supreme content is, if you will permit me to use a familiar phrase, the recovery of its lost ground. The end of man is not happiness (*i.e.*, not happiness as commonly understood), nor success, nor the discovery of truth, nor even goodness, if we consider this simply as a psychical disposition, without reference to anything else, it is communion with God—full, free, and perfect communion, undisturbed and unchecked by sin, or

* I am not forgetful of the important place which the doctrine of Creation holds in the historical symbols of Christian belief. This doctrine, however, scarcely seems to belong to the essence of Religion. It is, I think, quite conceivable that there should be a very real religious consciousness without any thought of Creation, or even of God as the source of all. Certainly the conception of Creation does not seem essential to Religion, for we know well enough that in certain highly developed religious systems this conception is not to be found,—its place being taken by the idea of Emanation. Where the doctrine of Creation exists, it is, I should be disposed to say, either one of the *credenda* of Revelation, or due to the appropriation by religious thought of a philosophical speculation, or of a suggestion of that lingering and unconscious animism which seems to have played a part of no little importance in giving form and colour to human opinions and beliefs, although we may easily over-estimate and misinterpret its significance.

I may add, in passing, that the pre-occupation of Religion with spiritual affairs to which the text refers is, perhaps, a partial explanation of the little care bestowed upon the philosophy of Nature by that system of philosophic thought which grew up in the Middle Ages in such intimate connection with Christian theology.

failure, or folly. This, I presume, in its highest form, is what the Schoolmen meant when they spoke of the Beatific Vision, and if so, then, as far as the Scholastic system of ethics is a development and application of these fundamental doctrines that the true end of man is happiness, and that the true happiness of man is to be found in the Beatific Vision, to that extent it is profoundly true. You will say that this is nothing but the free appropriation of Christian theology. Well, it is Christian theology—at least, I hope it is, for I am no theologian, and do not claim to pronounce on these high matters with certainty, but instead of speaking of “appropriation,” I would prefer, in order to keep within the limits marked out by my own definitions, and, what is still more important, to keep in closest touch with what I believe to be the truth of the matter,—I would prefer, I say, to speak of it as the expression in the terms of Christian theology of that to which the Christian consciousness bears witness. I agree, then, that I have spoken in terms of Christian theology, and I have done so, of course, because I hold that theology to be true, because I believe that in that theology the religious consciousness of mankind receives its highest and fullest expression. In what relation it stands to doctrines which, although religious, are not Christian, will engage our attention in a few moments.

Freedom of the will,—moral freedom, such a freedom as permits a man, if he chooses so to do, to determine his own ends of action, and to follow after them as far as his circumstances permit,—freedom such as this is, naturally, the pre-supposition of that philosophy of Nature and of Life which I am now submitting to you, but this I do not dwell upon, because the belief in the freedom of the human spirit seems to have its ground in the moral rather than in the distinctively religious consciousness.

The future life is, of course, the subject of definite teaching in that body of theology upon which I have already drawn, but, in so far as a man cherishes sure and certain hope concerning that life, I should be disposed to say that he does so as the result of specific Revelation, and not as affirming one of the direct utterances of the religious consciousness. Nevertheless, all that purely ethical systems of philosophy find in the fact that moral ideals are never fully attained on earth to suggest the doctrine of a future life, and all that reflective thought upon the spiritual nature of man can find to point towards immortality, is equally available for the religious thinker. Moreover, the character of the experience which makes him what he is, a distinctively *religious* thinker, and the whole tenor of his thought, and tone and disposition of his feeling place the essentially spiritual character of human nature before him so continually and prominently, that he can see little if anything to

dissent from in doctrines such as that of mediæval thought which asserts that the soul is in the body as containing it and not as contained by it, and finds little difficulty in the way of his faith in that intimate union of the soul with the body which presents such a stumbling block to so many. Nevertheless, as giving a sure ground of hope and belief concerning that which has often been felt to be the natural correlate of the ethical view of life, Christian theology must here be regarded as making an important, if not an indispensable contribution to religious philosophy.

Concerning the natural surroundings of human life, the religious consciousness, in its simplest form, says, I think, nothing. The moral consciousness, it is true, suggests that external nature must be so constituted as to permit man to avail himself of his freedom in practical effort after the moral ideal, and this, equally with the belief in liberty, is a pre-supposition of Religion. Like that latter belief, however, its ground is moral rather than distinctively religious.

It has been said that since happiness, no less than goodness, is the end of man, and since happiness comes to man out of his relations with the world of men and things around him,—it has been said, I say, that the moral ideal requires that Nature shall be so constituted and ordered as to make happiness coincide with goodness. You will remember that it was this hypothetical necessity that led Kant to introduce the conception of God as one of the postulates of the practical Reason. Religious philosophy, however, as we have just seen, makes the supreme end of man entirely spiritual, and does not speak of happiness, but of peace. Therefore, it does not contain any such reference to external nature as the modified hedonism of the doctrine I have just mentioned necessarily prompts. It will be apparent, too, from this that the Christian philosophy of life is not directly concerned with either Pessimism or Optimism. These contrasted types of thought and feeling are essentially associated with hedonism in its various forms. Now, Christian teaching, since it substitutes quite a different conception of the end of life from that which hedonism suggests, has no direct interest in either.

In that highest form of the religious consciousness to which the Christian faith gives expression, we meet, of course, with doctrines of creation and miracles which intimately concern the world of Nature, and these require that we admit into our philosophy of Nature nothing that is inconsistent with them. The full significance of this will appear presently.

Although the doctrines I am now confessing thus make but little direct reference to external nature, they are full of deep suggestion in their application to the social environment of the individual life. Although they define the supreme end of man as entirely spiritual,

yet his way to that end lies through the gate of service, and the human society around him, with all its various need and suffering, is the chosen field in which they call a man to render service. In their highest application they tell of a Holiness higher than any seen or dreamt of on earth, of a Supreme Holiness which cannot rest in enjoyment of Its own perfection, but which must needs find expression in sustaining and redeeming care in the world of men and things. Now, it is the contemplation of that Supreme Perfection, and in full and adoring communion with It, that they find the true end of human life, while in the voice of duty they detect the utterance of the Highest and the Holiest Will calling man to work and to service as the nearest, and, indeed, the only way to that highest end of his being. Say, if you will, that the Beatific Vision is the end of man, that surely implies, as the condition of its possibility, the possession of a certain spiritual character, and the service of others is the way in which that character, here and now, is to be built up. Thus, the highest aspect of man's practical life is found in his service of his fellows. By such service he strengthens and raises his own life, even as he also strengthens and raises the lives of others, and he becomes knit to them, and they to him, by spiritual ties which are the ideal bonds of human society, and which, even here and now, are far more potent than we sometimes think. This, then, is the social ideal which ultimately emerges from these conceptions. It sets before us the vision of a free community of free men who are bound together by ties of loving service for the highest good. The good aimed at being spiritual, those "economic difficulties" as they are euphemistically called, which trouble and perplex our present day societies, would have no place in a society ordered after that pattern, for the end of man is very far remote from any thing to which the mere acquisition and storing-up of material treasure can lead, and such treasure would only be esteemed in so far as it could minister to life,—to the highest good, that is, not only of its possessor, but also of those around him, and of the society which, by the multiform activities of its complex life, had enabled him to gather it. This, I say, is the idea of social life which finally emerges, and if we bestow a little thought upon all that it signifies, and on the full scope and meaning of the moral principles it involves, we shall, I think, see that because it is a *social* ideal, it throws not a little light on the first principles, not only of economics, but also of politics, and not only upon the theory of politics, but even more particularly upon the practice of it. Perhaps the key to the entire social aspect of religious philosophy will be found in the two propositions that moral ends should dominate conduct, and that the supreme end of all moral endeavour for the good of our fellows is the formation of character.

One word more and I will leave this branch of our subject—a branch which has, perhaps, already detained us too long. Not only does the life of duty, of which these doctrines speak, strengthen and purify the heart devoted to it, but, because it purifies it, it brings before it higher and ever higher practical conceptions of what it should be and do, and this leads it, by the sure path of experience, onward and ever onward towards its goal. Moreover, if we reflect how the needs of men, and the opportunities and possible scope of service for them, change with changing time and place, how, in short, the objective content of duty varies with varying circumstances, and if we look upon the course of human history, and note how the changes in human society have gradually, as the rough ages have softened, and as men have been drawn closer and closer together by the bonds of common need and service, and by external pressure,—how changes in human society have thus gradually given scope and opportunity for the free rendering of the higher and more distinctively spiritual forms of service, and how new needs and new concrete forms of duty arise with the changing circumstances of men, and, more particularly, with the growing complexity of their society, so that along the clouded path of social service, men have been led to higher and higher ideals of life, and to higher and ever higher conceptions of objective duty,—if, I say, we reflect upon all this, we shall find a certain sanctity in that history which from other points of view looks so dark and perplexing, and may, perhaps, get an inkling of a philosophy of history and of human society which shall be but an extension of that philosophy of human life and conduct of which I have endeavoured to give the outlines,—we may even, perhaps, be able to trace in the vicissitudes of national experience and in the so-called accidents of human history a certain spiritual meaning akin to that which makes the vicissitudes of our individual experience moments in a Divine discipline and education which has for its end the complete attainment of the highest good, the full enjoyment of the Vision Beautiful. Perhaps, also, it is not too much to hope that from this point of view we may gain some little insight into remoter and more difficult problems. Perhaps, for instance, the rapidly increasing familiarity of man with the hidden processes of nature will then be seen to be not without its peculiar interest and significance. In these more remote and intricate matters, however, the footsteps of thought become circuitous and uncertain, and conjecture and surmise take the place of speculative probability and moral persuasion. A philosophy of civilisation is difficult enough, but a philosophy of nature and of the evolution of nature, and of the relation of man to nature is immeasurably more difficult to frame.

I have now placed before you as briefly as possible, and yet at a

length which, I fear, has been wearisome, the chief features of that particular philosophy of Nature and of Life to which I personally adhere, and I have attempted to make plain how it does effectively accomplish the ends which the ethical philosophy sets out to achieve. I have already intimated my conviction that that philosophy is not equal to the task it proposes to itself, and now, in the few moments left to me, I should like to try to elucidate the grounds for this conviction, and to explain, as well as I may, why religious philosophy succeeds where merely ethical philosophy fails.

Speaking very briefly, I would say that the reason of this failure and success seems to me to lie in this fact—in the fact, that is, that Religion gives us the substance of which its competitor can only give the shadow, is clear and explicit where the other is obscure, brings certitude where the other can only speak of postulate and suggestion, of hint and inference. On the one hand we have, perhaps, the thought of God,—on the other, the intimate assurance of His immediate presence. The one speaks of the realisation of the self, but leaves undetermined what the self ought to be, or, at least, has no objective ideal, and furnishes no particular reason why the self should seek to realise itself, or should seek to realise itself in one way rather than in another. The other also speaks of self-realisation, but it makes manifest the presence of a Holiness in which all that man ought to become is already actual, while the quick response of the heart to that vision of the Highest asks for no justification or defence outside of itself. Lastly, one leaves man to work out his own destiny in his own strength, and thus, as it were, makes salvation hardest to those who need it most. The other, however, with clearer insight into the facts of human life, speaks of an Unseen Helper ever at hand to confirm the feeble knees and to lift up the hands that hang down,—of a present aid which comes to us not as external constraint to compel us to the right, but as indwelling grace which passes into the very texture of our nature, quickening the springs of holy aspiration and high endeavour, and bringing within the range of practicability much of spiritual effort and achievement which formerly lay quite beyond our powers. Moreover, the grace which thus comes to man is as available for those who have least strength of their own as to those who have most, perhaps more so.

There are some who come to us in the name of ethical philosophy, who, avoiding much of the preliminary metaphysic of other ethical teachers, speak to us directly of the Conscience, and grow eloquent concerning its high dignity and commanding worth. They may even admit that the Conscience, by its constant witness to a higher than we, postulates or suggests the existence of God. If it be simply a

postulate or suggestion that is thus given, I would reply, as I have already done in a similar case, that, on the other hand, Religion gives us an intimate assurance of His immediate presence. Moreover, Conscience itself needs to be in vital connection with some objective order of spiritual reality—objective, that is, to it—if its light is to keep clear and steady, much more if it is to grow clearer and clearer, so that it may become a safe guide along a constant spiritual ascent,—for the moral history of mankind abounds in eloquent testimony to the sad truth that the autocracy of the unenlightened Conscience, which fancies itself self-sufficient, is as dangerous to morals as the delusive persuasion of special divine illumination has often proved in Religion. Now, this dependence of the Conscience for light and health upon spiritual reality other than itself, finds full recognition in the religious philosophy of which I have been speaking, and in that same philosophy too, we find reasonable ground for the hope that patient and practical fidelity to the highest good that comes to us in each succeeding moment, according to the highest truth that we know, and to the best skill and highest strength that is ours, will lead us, through lengthening years, to an ever-deepening intimacy with things unseen which shall keep the life of Conscience fresh and pure, and shall give to its open vision a clearer and ever clearer insight into the content of the moral ideal, a clearer and ever clearer perception of the practical path of Duty.*

From this point of view, then, religious philosophy appears as the complement and supplement to ethical philosophy, inasmuch as the experience upon which it is based reveals the actual existence of that order of spiritual reality, and of those spiritual relations, which seem to be necessary to furnish the conceptions and the material without which ethical philosophy, as a philosophy of Life and Nature, cannot accomplish its task. Perhaps you will take exception to this "cannot" as being too strong, but I do not think it is, for the facts concerning God and man which Religion makes manifest are precisely those which constitute that objective ground of spiritual reality which is necessary to account for the growth of the moral life, and to sustain and inspire the following after the moral ideal, and which alone can justify and satisfy the moral consciousness. Moreover, and this is a point of some importance, it justifies and satisfies that con-

* I have spoken of the Conscience as postulating or suggesting the existence of God. Some, however, like Dr. Martineau—of whom I would speak with highest reverence—seem to find in that life of duty to which Conscience calls precisely that assurance of spiritual reality which I have indicated as the distinctive mark of religious experience. This is, indeed, the point at which ethics passes into religion, and teachers of this order should, I think, be classed as religious rather than as distinctively ethical.

sciousness precisely in the way in which ethical philosophy would have it satisfied and justified, by showing, that is, that its aspiration can be realised, and that all the objective conditions necessary to vindicate the instinctive trust that men repose in it—that is, in the moral consciousness—are actually present, so that in relying upon it men are not confiding in a mere emotion of their own souls, but in an order of objective reality which lies beyond that emotion, and which, in a sense, may be said to inform it and to make it more than a mere emotion. Now, ethical philosophy, at the very best, can only give us surmise and suggestion concerning the realm of spiritual truth which Religion thus unveils, and since in affairs of this order, thoughts are never adequate substitutes for facts, ethical philosophy must, I think, be held to fail, where religious philosophy succeeds.

Further, if we adopt the teaching of religious philosophy, and think of the nature of man as constituted after a pattern which, in the exercise of his freedom, he has lost, but which, in the exercise of that same freedom, he may recover,—if we conceive of the Archetype of that pattern as a Spiritual Presence which besets man behind and before, and influences him all his life long in ways that often pass his discernment, and always transcend the power of his words, and which witnesses to Itself within his heart in every suggestion of duty and of right, and draws him up unto Itself, for the realisation of the highest end of his life, in virtue of that very spiritual nature which makes the heart return unto God as a bird unto its nest or as a repentant son to his father's love,—if we commit ourselves to thoughts like these, it seems not hopeless to attempt to explain all the diverse phenomena of man's moral life, to explain, for instance, the life of duty lived in ignorance of God, and that devotion to self-realisation, and to the conception of "the good life" of which we hear so much to-day, and that enthusiasm of humanity which will not worship even the Unknown God, but which appears to find its inspiration in the thought of the generic humanity which persists while the individuals constituting it momentarily change.

Starting from the religious conception of Nature and of Life, then, it seems hopeful, I say, to essay the explanation of all these, but if that conception be rejected, I not only fail to see how the existence of Religion could be explained but, also, how morality itself could be shown to be anything more than an idiosyncrasy of individual psychology, for not until the subjective "ought" is lifted into its true place, and shown to be an inner witness to an external order of ultimate ends vitally connected with the life and nature of man, do we reach the basis of a doctrine of morals which can be anything but what Bentham would call "ipsedixitism."

We may even widen our outlook and take into account the

various religions of mankind and all the various ways, emotional and intellectual, in which man has attempted to apprehend the Unseen and Eternal, and if we hold fast to conceptions such as those I have just indicated, we need not lose a lively hope of explaining and, in measure, justifying all; and even though many of the doctrines and beliefs which will meet us in the attempt to construct our system of interpretation will seem to rest on slender and insufficient bases,—though some may seem invalid when tried at the bar of Reason, and though others may prove to be nothing more than golden fancies handed down from “the early world’s grey fathers,” yet the fact that men have held them and have, to a certain extent, found rest in them, will suggest the thought that they express some deeper need and rest upon deeper facts of Nature and of Life than the story of their genesis would indicate, and then, perhaps, we shall not make too great haste to put them aside, catalogued in our histories of opinion, but will be disposed to pause for a moment in reverent thought upon that besetting and unfailing Providence which has never left Itself without a witness in the world, but which has made even the immaturity of the human spirit and the very limitations of human powers bear, in such strange ways, a living and effective witness to Its presence.

One word more and I have done. I have spoken to-night of a religious philosophy of Life and Nature, and I have endeavoured to place before you what I conceive to be some of its main features and to indicate some of the chief directions in which it seems able to prove its value. What, however, are the first principles of that philosophy? Two, at least, seem fairly apparent. The first is that certitude given in experience must be taken as ultimate, and the second is that the true sphere of philosophy is interpretation. I have already attempted to show how the first of these principles applies in the domain of Religion, and, as I then contended, it is equally applicable in the domain of ordinary knowledge and belief. In every realm our ultimates are furnished by or through experience—taking that word in its widest sense—and are guaranteed by a certitude which is an integral part of the experience which brings them. In effect, I think, the philosophical doctrine to which the thoughts I have placed before you to-night most readily and completely lend themselves is a form of the doctrine of common sense.

All our ultimates being thus given to us, the only work left for philosophy is to harmonise and interpret them and also to defend them against interpretations which would militate against their true character. All philosophy has arisen from the effort of man to interpret his experience. At different times, however, and by different thinkers, different parts of experience have been neglected,

while others have been assigned undue prominence. Thus, sensory experience, the observation of physical nature, the analysis of knowledge and experience on the subjective side, and the analysis and elaboration of abstract conceptions, have all, in turn, been made the distinguishing features of systems of philosophy. What is this but to say that divergent schools agree in this—that they each, in effect, attempt the interpretation of a part of experience. Then, again, they usually make the attempt in the light of one part alone of man's complex nature, viz., the speculative Reason. Now, in contradistinction with this, the religious philosophy of which I have spoken attempts an interpretation of the whole of experience in the light of the whole of human nature, and thus endeavours to satisfy not only the requirements of the intellect, but also the needs and aspirations of the heart.

It is, perhaps, an unfamiliar thing in these days to hear of a philosophy thus the handmaid of Religion and not its guide, but it is the handmaid of Religion only because it is, in a precisely similar way, the handmaid of all the practical certitudes of life. It starts with facts,—the facts guaranteed by experienced certitude,—and it is only because the ultimates of Religion stand for it among those facts, that it is content to be their handmaid, just as it is the handmaid of all else possessing similar status. Of course, the necessary preliminary to this is an inquiry into certitude and assent,—such an inquiry as shall justify the starting place of the new philosophy, but that being completed, the ancillary character of the philosophy follows as a matter of course.

What would be the final form of such an attempt to interpret experience, if it were ever seriously taken in hand, I will not say. It would probably embody doctrines taken from many widely different schools, and would thus be a new synthesis of philosophic thought, and for such an undertaking—that is, for such a new synthesis—the times are, I think, rapidly becoming ripe. This, however, I will venture to say, the final results of such a synthesis and of such a new attempt at interpreting experience, would probably show considerable affinity with the teaching of that great historic philosophy which grew up under the immediate influence of the Religion with which we are most familiar, and which still flourishes among us as a vigorous system of living thought,—I mean the philosophy of St. Thomas Aquinas.

NOTE.—It is often said that natural science forbids us to believe in miracles. Upon what ground, however, does it do so? Is it on account of the doctrine of the uniformity of nature? Let it then say what is the real nature of that doctrine.

As a simple matter of fact is it anything but a hypothesis, and, if so, in so far as it is not a hypothesis, is it anything but the bare principle of identity,—the principle which asserts that A is A, and will continue to be A and to act as A, until it changes, that is, just so long as it does, and not a moment longer, but which says nothing as to the length of time during which this unchanged identity will persist? It cannot be too strongly urged that modern scientific doctrine is very largely interpretative, and is read by us into Nature, and not, strictly speaking, found there. In the most accurate sense of the phrase, it rests upon hypotheses, and these hypotheses, because they are hypotheses at the beginning, never become anything else, for it can I think be shown, in the last analysis, that the verification of a hypothesis is, in strictness of speech, an impossible process. Then, again, the character of the hypotheses employed changes with the changing centuries, so that it is not too much to say that the scientific theory of an age, is, in essence, merely one of the several forms in which the spirit of that age expresses itself. One generation believes in supra-sensuous ideas as the governing principles of all being, and has one form of scientific theory, another generation does not so believe, and has another. That is all,—as men change, so their theories change. .

There does not, therefore, seem to be anything in the nature of scientific teaching to prevent anyone who may be concerned to find a place in philosophy for the conception of the miraculous from shaping the whole matter to himself in this way :—the facts and forces of nature are due to the free creative act and conserving care of God, and miracles are simply particular deviations from customary procedure for special purposes. Such a statement of the case as this even preserves the conception of the unity of nature of which we hear so much, only it places the centre of unity not in contingent nature, but in the Deity whose conserving will alone preserves its forms and powers.

PROCEEDINGS

OF THE

ARISTOTELIAN SOCIETY

FOR THE

SYSTEMATIC STUDY OF PHILOSOPHY.

Vol. 2.
No. 3, Part II.

CONTENTS.

	PAGE
Green and his Critics—By W. H. Fairbrother	99
Symposium—The Relation between Thought and Language—	
I. By Miss E. E. C. Jones	108
II. By J. S. Mann	113
III. By G. F. Stout	115
Epictetus—By R. J. Ryle	123
Symposium—The Nature and Range of Evolution—	
I. By H. W. Carr	132
II. By G. D. Hicks	137
On the Immateriality of the Rational Soul—By Dr. Gildea	151

APPENDIX.

Report of the Executive Committee for the Fifteenth Session	162
Suggestions for the Sixteenth Session	163
Financial Statement	164
List of Papers read during the Fifteenth Session, 1893-94	166
Dates of Meetings for the Sixteenth Session	168
Rules of the Society	169
List of Officers and Members	172

GREEN AND HIS CRITICS.

By W. H. FAIRBROTHER.

§ 1. *Introductory*.—If a phrase be sought with which to sum up the late Professor Green's general position in regard to life and its problems, it would be difficult to find one more fitting than Aristotle's *ἔσμεν ἐνεργεῖα*. Not in wisdom merely or in potential capacity, but in actually living his life, does Green hold that true well-being for a man is to be found. To discover and to demonstrate in what true human well-being consists is the highest intellectual object for man, and is specially the aim which philosophy should set before itself; to realise this discovery in civic life is the one practical function of the good citizen. Thus Green's primary aim is Moral and Political Philosophy, of which the latter is only the application to facts of social life, under definite circumstances, of the truths arrived at by the former.

But, before a theory of Ethics is possible, a preliminary task must be fulfilled. It is in vain to answer the question, "What ought the good citizen to do?" until the prior question, "What is a citizen?" has been dealt with. That "some conclusion in regard to the relation between man and nature . . . must be arrived at before we can be sure that any theory of Ethics . . . is other than wasted labour" is Green's explanation of the fact that the first book of an Ethical treatise consists of pure Metaphysics. And Green has a special pressing necessity for this preliminary inquiry. Current English philosophy seemed to have reduced man to a "being who is simply a result of natural forces"—a conclusion which, as a necessary consequence, involves the reduction of the theoretical part of Moral Philosophy to a natural science, and the abolition of the practical or preceptive part altogether. A theory of conduct is unmeaning if conduct itself is impossible, and equally unmeaning is it to bid a being to conform to certain natural laws if he is simply a result of their operation. A new "Critical Philosophy" is needed, which shall ask: "Is man simply a natural product in this sense?" "Can what we call science, *i.e.*, the experience of connected matters of fact, be explained if man is nothing but a number of such matters of fact or their results?" "Is there not involved in Knowledge a principle which is not 'natural' but 'spiritual'?" These questions must be first settled if our labour as Moralists is not to be profitless.

Hence, Green's philosophy throughout refers back consciously and continuously to the Metaphysics upon which it is based. It is

to this that its consistency is due. He tries, as far as possible without presupposition, to work out an answer to the question, "What is the nature of man?" From that he deduces his doctrine of man's *ἔργον*, and this again he uses as a criterion of the moral progress or condition of political society; regarding civic and social institutions as the objective expression of moral ideas and the concrete body with which the Moral Ideal is to be clothed.

Green's Metaphysical Moral and Political Philosophy form thus one whole, and offer a theory of life not only complete in the sense of covering the ground, but consistent with itself throughout. More directly, if not more definitely, than perhaps in any other modern writer, the whole work stands or falls with the Metaphysical basis. With a true instinct, Mr. Balfour—in leading off the attack in January, 1884—confines himself to the First Book of the *Prolegomena to Ethics*, and Professor Seth's more elaborate criticism in *Hegelianism and Personality* does not outstep the same narrow limits. I propose, therefore, to state in bald outline what this Metaphysic is in its method and results, then to summarise a little more fully the criticisms just mentioned, and, lastly, to ask how far they hold good. It is best to state frankly at the outset that I don't think they hold good at all.

§ 2. *Green's Metaphysic.*—Taking his stand upon the scientific axiom that the ultimate evidence for the presence or action of anything lies in results inexplicable without it, Green argues throughout from Effect to Cause. The "effect" or "result" investigated in Metaphysics is "that which exists" and the only "thing which exists" for a man necessarily and certainly to begin with is that of which he is directly conscious in himself. In practical life we assume the existence of much else besides—an objective world, other selves, and so forth—but the only sure ground we have, strictly speaking, is "that of which we are conscious." Hence, "What are the facts of my own individual consciousness?" and "What is the simplest explanation I can give of the origin of these facts?" are the two primary questions of Metaphysics.

This method of investigation Green uses both positively and negatively; that is to say, he employs it directly to obtain all the results achievable from its legitimate sphere of operation, but refuses to advance one step beyond this sphere. He tries to analyse by direct introspection the nature of his own mind and its working. He then asks what is implied as pre-existently necessary. The "necessity" of a metaphysical or scientific conception means that without it we cannot explain some fact of our consciousness, some constituent in what we call our experience. We are entitled to hold as necessarily true whatever is required to explain this experience,

but only what is so required. To take less is to give up our birthright, to demand more is to unjustifiably arrogate to ourselves what we have no right to at all. Hence, while asking continually "what" and "how," Green definitely refuses to raise the question "why." One law of Nature is explained by reference to or resolution into other laws; one part of Nature is or may be explained in terms of other parts, but Nature itself, as a whole, cannot be explained. "The old question why God made the world has never been answered, nor will be. We know not why the world should be, we only know that there it is." *Interpretatio naturæ* is the very keynote of Green's method. Whatever results upon "the best analysis we can make of our experience" must be loyally accepted; anything not so justified has no claim upon us as intelligent beings.

The simplest element in our experience is an act of sense perception—an act which "no one doubts we can perform." This act reveals at once "a multiplicity in unity." No fact of consciousness exists except as an interrelation. It cannot be resolved into atomic, disintegrated feelings. It is a spiritual whole—it presupposes the work of mind.

This characteristic of the "content" of knowledge implies that the object of knowledge as it exists before any given individual mind comes to know it must be of the same spiritual nature, otherwise it would not be knowable or intelligible—would not be an object of knowledge at all. In other words we are driven to the conception that τὸ ὄν (Reality) = not only the "self" of which I am directly conscious, but also an intelligible universe.

This latter fact—the intelligible universe—seeing that obviously I did not make it but was born into it, implies in its turn, a Creator who is a "Self-conscious Intelligence," in the same sense that I am a Self-conscious Intelligence. In Him the idea of the human spirit is completely realised, but free from human limitation. He is Eternal, Universal, Omniscient.

These results seem at first sight a startling consequence from an analysis of our experience, but it is important to remember, not only in order to understand Green rightly, but also in view of the criticism we are about to deal with, that Green rests his case solely upon evidence so obtained. If the doctrines be true, he holds we can explain Man as we find him, without it we cannot. In his own words (spoken more particularly with reference to the relation of the human self to the Eternal Consciousness): "Proof of such a doctrine, in the ordinary sense of the word, from the nature of the case, there cannot be. It is not a truth deducible from other established or conceded truths. It is not a statement of an event or matter of fact that can be the object of experiment or observation.

It represents a conception to which no perceivable or imaginable object can possibly correspond, but one that affords the only means by which, reflecting on our moral and intellectual experience conjointly, taking the world and ourselves into account, we can put the whole thing together and understand how (not *why* but *how*) we are and do what we consciously are and do. Given this conception, and not without it, we can at any rate express that which it cannot be denied demands expression, the nature of man's reason and man's will, of human progress and human shortcoming. . . . The wonder in which philosophy is said to begin will not cease when this conclusion is arrived at; but till it can be shown to have left some essential part of the reality of the case out of sight, and another conclusion can be substituted for it which remedies this defect, this is no reason for rejecting it."

§ 3. *Professor Seth's Criticism*.—"Green's whole system centres in the assertion of a Self or Spiritual Principle as necessary to the existence alike of knowledge and morality. The presence of this principle of connection and unity to the particulars of sense alone renders possible a cosmos or intelligible world, and is likewise the sole explanation of Ethics as a system of Precepts. The impressive assertion of this one position may . . . almost be said to constitute his entire system."

As regards the critical side of this doctrine (*i.e.*, as against D. Hume, &c.) it is "victorious and conclusive," but in regard to the nature of the Self or Spiritual Principle everything is left vague and ambiguous. It is nowhere explained how the individual self is a reproduction of a divine universal self, and what evidence there is for the possibility of this relation of identification.

The ambiguity which thus clings to Green's central position is due to the source from which he derived it, *viz.*, the Kantian philosophy read in the light of the Hegelian system. This development possessed a radical flaw. Kant's method of proof is the analysis of experience with a view to discover its indispensable constitutive elements. Taking the fact of knowledge as it finds it, it does not inquire how that fact was realised or came into being . . . but, *moving always within the fact*, it asks what are the conditions of its being what it is, what in other words are its essential elements. It is an analysis of the *nature* of knowledge, not of its *genesis*.

This method has its limitations, it can only give us a theory of knowledge and not a ready-made ontology—it is not an absolute theory of the universe. Herein lies Green's great mistake. He claims to follow out the transcendental method to its legitimate issue and make Kant consistent with himself, but in so doing he avowedly transforms Kant's theory of knowledge into a Metaphysic of

Existence, an absolute philosophy. It is this transformation which forms the core of the Neo-Kantian position. Green explicitly identifies the self which the theory of knowledge reveals—the single active self-conscious principle—with the universal or divine self-consciousness, the one eternal divine subject to which the universe is relative, and which makes the animal organism of man a vehicle for the reproduction of itself.

Now this conversion of “consciousness in general without more ado into a universal consciousness is in the highest degree improper. The transcendental theory of knowledge, because it is an abstract inquiry, necessarily speaks of a single self or logical subject; but this singularity is the singularity which belongs to every abstract notion and decides nothing as to the singularity or plurality of existing intelligences. We can have absolutely no right to transform this logical identity of type into a numerical identity of existence. Yet this seems to be precisely the step which Neo-Kantism makes. It takes the notion of knowledge as equivalent to a real knower, and the form of knowledge being one, it leaps to the conclusion that what we have before us is the one subject who sustains the world and is the real knower in all finite Intelligences. This is neither more nor less than to hypostatise an abstraction. It is of a piece with the Scholastic Realism which hypostatized *humanitas* or *homo* as a universal substance of which individual men were the accidents. Green’s theory of the universe may be true, but its truth must be established upon other lines.”

[It might be remarked here, parenthetically, that no one would more heartily endorse this sentiment than Green himself, and that the remainder of Seth’s attack is little more than the expression, in elegant and flowing language, of the exact doctrine Green tried to express in his own crabbed and involved way]. To resume:—

Seth holds, lastly, Green’s doctrine of the self to be not only illegitimate and unproven, but also self-destructive—it destroys, *i.e.*, both man and God. In his own words:—“The radical error both of Hegelianism and of the allied English doctrines I take to be the identification of the human and the divine self-consciousness, or . . . the unification of consciousness into a single self. It is true there could be no interaction between individuals, unless they were all embraced within our Reality: still less could there be any knowledge by one individual of others if they did not all form parts of one system of things. But it is a great step further to say that this universal attitude of the self, as such, is due to the fact that it is one universal self that thinks in all so-called thinkers . . .

for each self is a unique existence which is perfectly *impervious* to other selves—impervious in a fashion, of which the impenetrability of matter is a faint analogue. . . . It is none the less true, of course, that only through selfhood am I able to recognise the unity of the world and my own union with the source of all . . . but though the self is thus in Knowledge a source of unification it is in Existence or Metaphysically a principle of isolation.” “There is no deliverance of consciousness which is more unequivocal than that which testifies to this independence and exclusiveness. I have a centre of my own—a will of my own—which no one shares with me nor can share—a centre which I maintain even in my dealings with God himself,” but “Green’s doctrine of the Universal self is a thorough-going Pantheism.” In fact, “the attempt of the Hegelian and Neo-Hegelian schools to unify the human and divine subject is ultimately destructive of the reality of both . . . if we are to keep the name God at all, subjectivity—an Existence of God for Himself, analogous to our own personal existence, though doubtless transcending it infinitely in innumerable ways—is an essential element in the conception. We can only know Him as manifested in Nature and history; and knowledge of the manifestation is in both cases knowledge of the essence . . . but just as the man has a centre of his own so, if we speak of God at all, there must be a divine centre of thought, activity, and enjoyment to which no mortal can penetrate. . . . Moreover, the admission of a real self-consciousness in God seems demanded of us if we are not to be unfaithful to the fundamental principle of this theory of knowledge—interpretation by means of the highest category within our reach. . . . God *may*, nay, *must be*, infinitely more—we are at least certain that he cannot be less—than we know ourselves to be.”

So far, Professor Seth—before speaking of any further criticism may I be permitted to quote a section of Green’s *Prolegomena*—one of a score not chosen carefully, but the first which occurred to me as I was writing the above page:—§ 182. “It is clearly of the very essence of our doctrine that the divine principle, which we suppose to be realising itself in man, should be supposed to realise itself in persons, as such. But for reflection on our personality, on our consciousness of ourselves as objects to ourselves, we could never dream of there being such a self-realising principle at all. . . . It is the irreducibility of this self-objectifying consciousness to anything else, the impossibility of accounting for it as an effect, that compels us to regard it as the presence in us of the mind for which the world exists. To admit, therefore, that the self-realisation of the divine principles can take place otherwise than in a consciousness which is an object to itself, would be in contradiction of the very

ground upon which we believe that a divine principle does so realise itself in man. Personality, no doubt, is a term that has often been fought over without any very precise meaning being attached to it. If we mean anything else by it than the quality in a subject of being consciously an object to itself, we are not justified in saying that it necessarily belongs to God. . . . But whatever we mean by personality, and whatever difficulties may attach to the notion that a divine principle realises itself . . . in the persons of men, it is certain we shall only fall into contradictions by substituting for persons . . . any entity to which self-consciousness cannot intelligibly be ascribed. If it is impossible that the divine self-realisation should be complete in such persons as we are . . . on the other hand in the absence of self-objectification—the essential thing in personality—it cannot even be inchoate.”

In reading sentences such as these how can we avoid the haunting suspicion that Professor Seth, in some moment of absent-mindedness, has confused the function of “critic” with that of “plagiarist”?

§ 4. *Mr. Balfour*, also, fastening upon the word Neo-Kantian, describes Green’s metaphysic as a “simplified Kantism, purged of things in themselves, and denuded of the complicated architectonic structure with which its first author encumbered it.” But whereas Kant held that a scientific knowledge of phenomena alone is possible, Green professes to demonstrate the existence of individual self-conscious spirit outside the realm of phenomena altogether, and of one universal self-conscious spirit, through which alone the world of phenomena exists, and of which all other intelligences are the imperfect manifestations. *Mr. Balfour* fastens, in his clear cut and trenchant manner, upon the difficulties which I have just quoted from Professor Seth—describing Green’s doctrine as a Pantheism in which it is “as true to say that the world made God as that God made the world, and pointing out that the self individualises and isolates, &c. To these criticisms, which it is obviously unnecessary to reiterate, he adds his usual agnostic sentiment, to wit, ‘that although to reject Green and adopt other suppositions would render science impossible, still, what matters?’” And then pointing out with perfect truth that Green has not really explained how the relation he supposes between the human self and God is possible, or adequately conceivable by us, he complains that Green thus gives us theological mysteries rather than philosophical conclusions, but kindly adds that the attempt is “not discreditable, for, after all, we are human beings and not investigating machines.”

In his last utterance (*Mind*, October, 1893) he substitutes the word “mysticism” for “theological,” but otherwise merely repeats in a more popular way his earlier essay.

§ 5. Now at the outset I wish to emphasise a certain mental incapacity which such criticism as this last paragraph contains betrays—it is not confined to Mr. Balfour—Mr. Bradley, *e.g.*, is a great sufferer—but it puts the critic out of court at once—the incapacity, that is, to distinguish between science and omniscience. Green has not solved every problem in the universe, but is that an argument worth serious consideration? I am not prepared to go so far as a recent writer and assert that “the non-attainment of finality in a philosophy is its highest virtue,” but I maintain emphatically that if we *can* find a theory of metaphysic whose sole shortcoming it is not to give us an “adequate conception” of what things will look like when we *are* all that we may ultimately *become*, we are bound as rational beings to give in our adherence to that theory on the spot. To admit that a philosopher is on the right road is to admit everything; to complain he has not yet reached the goal is puerile. It will be more profitable if we confine ourselves to the criticisms common to Professor Seth and Mr. Balfour. They exhaust, as far as I know, the difficulties which have been brought against Green’s main teaching.

Green represents what may be called Integration as opposed to Disintegration—both in Thought and Being. Our critics admit fully his value negatively. As against Disintegration he is “victorious and conclusive”—establishes once and for all the validity of the “Logical Self”; but instead of using this Logical Self when he has got it he abuses it. The whole pith of Seth’s criticism is in the words “We have absolutely no right to transform a logical identity of type into a numerical identity of existence—to make a theory of knowledge into a ready-made Ontology.” Whether this feat be even a possible one I do not stop to inquire, for it is certain that Green does not attempt it. The only “ready-made” element in his system is the assumption (made by all constructive science) that knowledge is possible, and the only ontology he begins with is his own existence. What have I got in my head, and what is the simplest explanation of it? are the questions he asks. His relation to Kant consists in a grateful acknowledgment of that philosopher’s doctrine that experience involves a permanent self, together with an emphatic warning not to follow him in “asserting the unity of the world of our experience only to transfer that world to a larger chaos.” This phrase, Neo-Kantian, is in the highest degree unfortunate. Seth admits, it is true, that “Neo-Kantism is as different from Kant as Neo-Platonism from Plato”; but still it must be either a copy or a corruption of Kant, and as it is not the former it must be the latter. Hence the use of words like “illegitimate,” “ready-made,” “without more ado,” “transformation,” “conversion,” &c., &c. Once admit, however, the possibility that Green’s doctrine is the result of an independent

investigation, and the irrelevancy of these reproaches becomes obvious. The "self" Green starts with is neither logical nor ontological in any significant sense—it is just "his own self." From this he finds himself driven (so he thinks) step by step with irresistible cogency to the *κόσμος*, and from that to God. The "universal knower" of which Seth complains so much is not Green's starting point; it is the final conclusion to which he is led, by the "best analysis he can make" of his own experience. Do our critics object to this analysis? They name it "victorious and conclusive." Do they point out missing links in the chain—a long chain, remember—by which we reach the "eternal consciousness"? They ignore it altogether, and assume that Green starts with his final conclusion. No wonder, then, viewing the doctrine as such a monstrous *petitio principii*, they urge that "if true, its truth must be established upon other lines." But their misunderstanding is even worse. This illegitimate, ontological "Self" is not even a "Person"—Green's philosophy is a "thoroughgoing Pantheism," and not only that, but a Pantheism "of a piece with the crude Scholastic realism which hypostatised humanitas," &c., &c. It is difficult seriously to attempt an answer to such an *ignoratio elenchi* as this. One feels almost tempted to believe that our critics, charmed with the "victorious and conclusive" attack upon Hume, and delighted with the idea of a "simplified Kantism purged of things in themselves," expected confidently to find the final consummation, if not of *things*, at least of the *knowledge* of things; and in their disappointment at discovering Green to be only human, have turned about to rend him somehow, fair means or foul.

I would plead that Green's starting point and method of procedure are legitimate—that his analysis, while giving us facts which we recognise in our own experience, nowhere drags in elements not apparently necessitated by these facts, that the structure gradually built up is consistent with itself, and that finally the difficulties remaining show as yet no indication that they will require solution on other lines. These difficulties I conceive are practically two, viz.:—

(1) How is it that the as yet unknown elements in a spiritual universe *appear* material?

(2) How is it possible for several individual selves—whether human or divine—to be all of them parts of *one* *κοσμός*.

It is both a privilege and a duty to work away at these questions, it is irrational to blame a predecessor who saw them as clearly as we do that he did not live long enough to reach them. Green tells us clearly what he starts with, how he proceeds, the conclusions he arrives at. That these conclusions, or some of them, are startling, he frankly admits, that no "adequate conception" of *one* of them in its full

reality is as yet humanly possible he emphatically urges, but holds—and surely legitimately holds—that “till his theory can be shown to have left some essential part of the reality of the case out of sight and another conclusion can be substituted for it which remedies the defect, this is no reason for rejecting it.” The criticisms I have quoted make no attempt to show any such gap or inconsistency in Green’s analysis. Still less do they substitute a theory which remedies that or any other defect. Instead, when not engaged in reproducing, with eloquence all their own, Green’s main doctrine, they busy themselves with bursts of righteous indignation against a crude ontology which, whatever its source, assuredly cannot now be found in any current edition of Green’s writings.

SYMPOSIUM—THE RELATION BETWEEN THOUGHT AND LANGUAGE.

I.—By MISS E. E. CONSTANCE JONES.

It is not the whole vast question of the relation between Thought and Language that I venture to consider in this short paper, but only the restricted questions, (1) What are the “mental equivalents” of words used, and (2) How far do *ideas* of words accompany thought in which there is no *presentation* of words to sight, hearing, or touch?

It may perhaps be said without much hesitation, that when words are heard or seen, spoken, written, or otherwise formed, in as far as the words are recognised and convey a meaning, there must be some mental concomitant, something other than the mere presented word itself. Unless this were the case, (1) a word, both when new and strange and not understood, and when it has become familiar, would have approximately the same mental equivalent—and (2) words would have no reference beyond themselves.

But as “expressive signs,” and as used in propositions of the form *S is P*, they necessarily have such a reference. Hence when, for instance, I say to a countryman, “I saw a flock of sheep crossing the common this morning,” and ask him what he thought of when I said *sheep*, and he replies “Nothing,” I take the liberty of doubting his reply; not at all because I suspect him of any wish to conceal the truth, but simply because I believe he really does not know, and therefore cannot describe *what* exactly it was that occurred to him in connection with that word. He knows as well as I do the meaning of the word, and never fails to apply it correctly. And when in

answer to the same question, his wife and sister respectively say that what they thought was, (1) Who do they belong to? (2) Were there any lambs with them?, I feel quite certain that these practical questions were *not* really the "mental equivalents" of the word *sheep* in my interlocutors' minds.

It is probably difficult for an unpractised observer in any case, and for even the most competent observer in *some* cases, to fix the fugitive concomitant of an understood word. *Some* reference there must be of general validity, even where a name is merely understood to be the name of some given object; and this is true even if the speaker has attached the name to *one* quality instead of a group, or to one quality instead of another.

For instance, when Kaspar Hauser was shown a goose, and learnt its name, he attached the word *Gans* to the *colour* of the animal; and thus, when soon afterwards he saw a white horse, he persisted in calling it a goose. A similar instance which I have heard of was that of a little child hardly able to talk, who had a baked apple for luncheon every day. He learnt to call it *apple*, but attached that word to the round shape; for he persisted, for some time, in calling every round thing which he saw by the name of *apple*—the moon, a plate, a ring, were all *apple*. Further differences no doubt result from personal interests and the unique mental background and associations—especially perhaps recent associations of each individual mind.

Cambridge, for instance, must mean something very different to the Senior Wrangler and the Senior Classic, to a Master or Professor and to an Undergraduate, to a May Term visitor and a constant resident.

In an analogous way, each of two children of different families, while knowing well enough the application of the words "*Home*" and "*Father*," may be very likely crediting a whole class with a combination of attributes peculiar to his own case.

This, which is inferable *a priori*, seems to be on the whole confirmed by facts. For even rough experiment shows that the mental equivalents of names differ extraordinarily in different people—and it might be added that they may also differ greatly in the same people at different times. For instance the word *Animal* will call up in one person's mind the name simply printed, or written in a particular handwriting, or printed on the outside of a particular book; or it may call up the image of a "picture alphabet" with illustrations of animals, or some story of animal intelligence, or a pet animal, or the first animal one cared for, or the cat of the house, or an idea of the movements made in speaking the word, or some striking delineation of an animal seen in a magic-lantern exhibition

or a picture gallery, or Noah's ark, or a mere shapeless moving mass. If one dwells upon the word, an immense succession of ideas may occur to one; where attention is brief, perhaps only one or two. What seems very often to happen in the latter case is that one just thinks very transiently of the word itself, with a satisfactory though evanescent consciousness of understanding its meaning and application.

If in reading or listening one meets a word, of which one does not know the meaning, one is instantly arrested by a feeling of dissatisfaction, due to the recognition of a hindrance to comprehension. As an illustration of what I mean, I may refer to what happens when, in looking rapidly through a passage in some tolerably familiar language with a view to translating it, one comes here and there upon words of which one does not know the meaning. The translator, the moment he sees the other words, and without any pause to realise their full import, is aware that he knows their signification; and he is aware, just as instantaneously, that he does *not* know the meaning of the strange words.

What perhaps happens often to some people in connection with Common and Proper Names, is that these call up in the mind a sort of "generic image." For instance the word *horse* may suggest a sort of vague image, like a horse seen at a little distance in a fog, which is definite enough not to be mistaken for any other creature, but not definite enough to be identified as of this or that breed, colour, size, &c., much less as a definite individual; *quadruped* may suggest merely four vague elementary legs supporting an elementary body, like a child's drawing, and so on. Our image of many acquaintances and even friends, may be very vague—just definite enough to enable us to know them when we see them, but by no means definite enough to enable us to accurately draw or describe them, or perhaps even to say by what sign or signs we recognise them.*

* These conclusions are in part based on some experiments which I made a few years ago, with the object of finding out the mental equivalent of words listened to, a brief summary of which is contained in *Proceedings of the International Congress of Experimental Psychology*, 1892, p. 181. Out of 994 experiments, in 680 cases a definite account was given of what I think may fairly be called "concrete" images; of these 118 were reported as the word given, 42 being the word *printed*, 27 the word *written*, 6 the word *spoken*, 7 the word described as *seen*, 13 complex cases, and 23 "the word" simply; 175 were clearly indicated as *visual* images of some sort, 381 merely as *particular* cases or instances. There was one case where apparently only a state of feeling was called up; one olfactory image, one auditory image, one visual and auditory, one of muscular movement and feeling, one visual association,—10 cases seem describable only as "abstract"; 46 were mere associations; 16 were definitions or descriptions; 40 were simply remarks,—36 might, I

There is an important difference, I think, between cases where words are (1) listened to or read, and cases where they are spoken or written—supposing, for simplicity's sake, that in (1) the reader or listener does not know what is coming, and that in (2) he does know. In the latter case the mental process in framing sentences is predominantly analytical; in the other case, the case of the listener or learner, the process is predominantly synthetical. *E.g.*, if, in answer to an inquiry, I say, "That picture is a portrait of Tennyson painted by Watts," I analyse a complex idea of that object which I have in my mind. My questioner on the other hand, as I speak, adds on by degrees to the idea of the *portrait* the further ideas that it is *of Tennyson* and *by Watts*. In the case of the speaker, words follow the thought; in the case of the listener, thought follows the words. Logical definitions of the Judgment or the Proposition are sometimes from one point of view and sometimes from the other—those which regard judgment as a combination of concepts are from the point of view of the *hearer*, those which (like Hillebrand's) hold that in *S is P* we have before the mind an object *SP*, proceed from the point of view of the *Speaker*.

The conclusions on this question that I wish to note are:—

(1) All words that are understood, have a reference beyond themselves (the reference being essentially general, whether it applies to an individual object or not). From this it follows—

(2) That all such words have a mental equivalent which is something other than the mere presented word (whether written or spoken, &c.).

(3) Where words are used by two or more persons with reciprocal understanding, however little, there must be at least a minimum of common reference. But

(4) From various causes the common reference may be very imperfect; and from personal and other differences, the associations and background of words may differ *toto cælo*; and we have here a fruitful source of misunderstandings.

(5) It seems to me probable that wherever names are used with understanding, there is *something* concrete or particular in consciousness—*some image*, visual or auditory, or tactual, or gustative, or

think, fairly be described as "symbolic images," and 24 as "generic images." In 10 cases it was said that *nothing* was thought of—a few answers I could not class under any of the above heads.

The same volume contains a more lengthy account of similar experiments made by Professor Th. Ribot with somewhat similar results, and also some interesting remarks on the subject by Professor Sidgwick.

olfactory, or muscular, or emotional, more or less vague. This image may be an example, or a symbol more or less remote; or it may be illustrative, or a mere capricious association.

(6) The precise relation to thought of the presented word differs according as one is speaker or audience.

The question considered above is, In what way does Thought accompany presented verbal language?

I now go on to make a few remarks with reference to the inquiry, How is unexpressed Thought related to Language?

And here again by *Language* I shall understand verbal Language: and by *Thought*, the Thought of people, such as we are, people who have used words from infancy, have had everything labelled with names for us, and are accustomed to receive and bestow information, and to express emotion, by means of words. Under such circumstances can solitary unexpressed Thought be carried on without Language, or rather, *how far* can it be so carried on?

What has been called Intuitional Thinking *can*, it is said, be carried on without words. In a correspondence which appeared in *Nature* just after the publication of Prof. Max Müller's "Science of Thought," Mr. Francis Galton and other scientific men asserted that they could carry on such Thought entirely without language, whereas Prof. Max Müller had declared not only that there is no Thought without Language, but also that there is no Language without Thought. If Language is the instrument of Thought, worked out by Thought for its own purposes, it must happen sometimes that Thought presses quite beyond the limits of current language. Current speech cannot go beyond the average level of Thought, and the thinker who transcends this must also transcend ordinary language. The artist and inventor must often do it too. And language is, besides, necessarily and inherently bare and abstract as contrasted with the fulness of Thought—it is a kind of shorthand or algebra of Thought, as Thought is a kind of shorthand or algebra of experience.

It seems highly probable that the inventor, or architect, or mathematician, with his machine, or tower, or diagram before his mind's eye, may work out his problem, to a large extent, without words. I can hardly believe, however, that even here there could be more than a very small fragment of the train of thought which does not involve words at all. Can the mathematician or engineer escape all echo of such words as *line, angle, equal, force, pressure, direction, &c.*? A comparison of such statements as I have been able to obtain or meet with seems to indicate that in regard to the relation here between Thought and Language the difference in different minds is really immense, and probably dependent to a very large

extent on the special experience, interest, and idiosyncracies of the individual concerned.

It seems likely that in proportion as Thought diverges from the so-called Intuitional type and becomes more and more symbolic and abstract, it depends more and more upon words, and that, as Professor Ribot suggests, the images before the Mind tend to be linguistic images.

II.—By J. S. MANN.

There is but little that I can disagree with in the paper we have just heard, but it suggests a number of subjects for discussion.

There can be no doubt, I think, that a word which is not pure gibberish always has some mental equivalent beyond the mere sound of the word when spoken or its appearance when written. The law of association alone would ensure this, and this equivalent, the nominal essence, as Locke called it, must differ very widely in different people. Association, again, would ensure this also, so must attention, especially that form of it called Apperception— if it has not been altogether demolished by Professor Münsterberg.

Some of Mr. Galton's experiments have been directed to the verification of this thesis—that the idea attached to a given word is widely different in different people. "Boat" was found to suggest a racing skiff to an undergraduate, while a young lady, on hearing it, pictured to herself a roomy "company boat" containing members of both sexes, with various other purely adventitious details in each case. Numbers of proofs can be found in any language. Why is the earth, etymologically, "the ploughed," the moon "the measurer"? Why did the Greek call a cat "the tail-waver," a puppy dog "the worrier," and a monkey either "the pretty fellow" (*καλλιός*), or "the pug-nosed" (*σιμπίας*)?

The way too in which children's words run on from one object to another (to the adult mind conspicuously different) undoubtedly supports Miss Jones' thesis. My own daughter, when not yet two, being told a locomotive engine was a puff-puff, applied the word successively to a sailing ship, the curved bone of a mutton chop, and a piece of paper with one corner bent—the link between the four being seemingly the attribute of possessing something sticking-up, like the funnel, the steam chest, and the driver's screen in the locomotive. Now the possession of parts which stick-up is by no means an obvious attribute of the locomotive.

The name, in fact, is arbitrary in its earlier application, as the

case of many slang words would show. It is only as it gets into general use that a sort of half-conscious convention arises as to its connotation, and probably each person who uses it adds something on his own account to this minimum connotation—which indeed is not probably present in its entirety to his mind at all. I cannot myself think that the “generic image” which Miss Jones, in common with many distinguished psychologists, thinks may be the mental equivalent of a generic name can possibly be all that is suggested to my mind by a name. The association, I think, must of necessity tend to give this image a more different content. I know I do not think of horses without adding some “separable accidents” like harness and a carriage; I believe my generic image of a man always includes clothes.

It is when we get away from these objects of common life that the real difficulties come. Does “intuitional thinking” really take place without the aid of language? On the one hand, what one has heard of the minds of men of great power of concentration and high scientific imagination seems to indicate that the mere words may go for very little. Professor Pollock tells us in his life of his friend Professor Clifford, that in explaining a certain mathematical theorem to him “he seemed to be merely describing what he saw.” In making the theorem plain to himself, Professor Clifford probably did without words at all. Association, I think, must bring them into consciousness however great the power of picturing may be, but in presence of a vivid picture of their connotation they are not wanted to think with—the symbol is displaced by the reality. On the other hand, would not “intuitional thinking” in any but these cases of exceptional mental concentration be destroyed at once but the rush of associations with every element in every intuition, unless there were some specially strong set of associations—those between the idea of the word as written or spoken and the ideas representing its ordinary connotation?

On the other hand, one would like to know what goes on in sub-conscious thought. To myself, and I daresay to most other people, a conclusion hardly ever comes as the result of a train of conscious reasoning; it comes suddenly, often after I have put away the thought of it for a considerable time. Can I suppose that a train of reasoning with words has been going on all the time outside the threshold of my consciousness?

But it is, I think, when we consider the more abstract relations of thought that the real difficulty arises. For what sensuous equivalent attaches, I will not say to an optative mood, but to a preposition? Prepositions are words in which the original meaning was probably motion or rest in space. How much sensuous element is there in

them now in their derivative senses, and how much less there must be accompanying a Greek particle!

Miss Jones, by the way, has made a courageous attempt to rehabilitate the synthetic judgment. I am not sure that her efforts can be regarded by its opponents as successful. "This is a portrait of Tennyson painted by Watts" builds up for a hearer not a judgment but a complex presentation, and the function of the judgment in the hearer's mind is to disintegrate that presentation and recognise the more important relations of its parts.

With this exception, however, I find myself unable to contest any of her thesis; the main difficulty of the subject seems to me to be in the relations of terms and still more of propositions.

III.—By G. F. STOUT.

It is an unusual course for the third writer in a Symposium to propound and maintain a thesis. Yet this is the course to which I feel myself impelled. Both Miss Jones and Mr. Mann appear to me to ignore, or, at least, to admit only in a tentative and vacillating way, the imageless nature of the thoughts which ordinarily accompany words. Now, I am of opinion that so long as this point remains unsettled, it is scarcely worth while to proceed to ulterior questions. My contribution to the Symposium is, therefore, a somewhat full discussion of the question, How far words which are understood must be accompanied by imagery—by a sensuous equivalent, as Mr. Mann puts it.

But it has often been pointed out that in ordinary discourse the understanding of the import of a word is something quite distinct from having a mental image suggested by the word. No one has shown this with greater clearness than Edmund Burke. The true state of the case was brought home to him on examining the way in which poetry and eloquence excite emotion. The relevant passages occur at the close of his *Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. His testimony is of the more value that the result of his observation was evidently a surprise to him, and appeared strange and paradoxical both to himself and others. "Whatsoever power such words as virtue, honour, persuasion, docility, may have on the passions, they do not derive it from any representation in the mind of the things for which they stand. Nobody, I believe, immediately on hearing the sounds, virtue, liberty, or honour, conceive any precise notions of the particular modes of action and thinking . . . for which these words are substituted.

. . . . Put yourself upon analysing one of these words, and you must reduce it from one set of general words to another in a much longer series than may at first be imagined, before any real idea emerges to light, before you come to discover anything like the first principles of such compositions, and when you have made such a discovery of the original ideas, the effect of the composition is utterly lost. A train of thinking of this sort is much too long to be pursued in the ordinary ways of conversation; nor is it at all necessary that it should.* Such words are in reality but mere sounds; but they are sounds, which being used on particular occasions, wherein we receive some good or suffer some evil; and being applied in such a variety of cases that we know readily by habit to what things they belong, they produce in the mind, whenever they are afterwards mentioned, effects similar to those of their occasions. . . . The sound without any annexed notion, continues to operate as before."

It is evident that in Burke the sensationalistic bias is so strong that he finds it impossible frankly to affirm the existence of notions which are not images. He, therefore, repeatedly speaks of the emotional effect as produced by the mere sound. At the same time he seems unable to maintain this position consistently. For how can we be said to "know readily by habit to what things (the words) belong," if no notion is annexed to them. In the above he has spoken only of words which do not readily suggest images even when we make an effort to call them up. But he is fully aware that the same remark applies to names of things which are easily picturable, such as man, castle, horse, when these names are rapidly and fluently combined. "I am of opinion that the most general effect, even of these words, does not arise from their forming pictures of the several things they would represent in the imagination; because, on a very diligent examination of my own mind, and getting others to consider theirs, I do not find that once in twenty times any such picture is formed, and when it is, there is most commonly a particular effort of the imagination for that purpose. . . . Indeed, it is impossible in the rapidity and quick succession of words in conversation to have ideas both of the sound of the word and of the thing represented." This he illustrates very aptly and at some length, adducing, among other instances, the description of the formation of thunder in Virgil — a description which loses its emotional effect if we attempt to translate it into definite imagery. Burke confesses that he found it "very hard to persuade several that their passions are effected by words from whence they have no

* *Burke's Works*, vol. i, pp. 303-304.

ideas"; and "yet harder to convince them that in the ordinary course of conversation we are sufficiently understood without raising any images of the things concerning which we speak." He might well find it difficult to persuade people that they understood the meaning of words without having any "notion" of the object signified by them. For this is a contradiction in terms. He deserves all praise for his moral courage in abiding by the facts as he found them, in spite of the absurdity of the conclusion to which they appeared to lead.

Observations similar to those of Burke are to be found in many writers on introspective psychology. We shall presently have occasion to refer to Hobbes, Berkeley, Hume, Stewart, and Dr. Campbell, who all bear unequivocal testimony to the fact that the flow of words is for the most part unattended by a parallel flow of mental imagery. Professor Ribot has recently instituted statistical inquiries which lead to the same result. He states his problem thus:—"When a general term is represented, heard, or read, what is there in consciousness besides the word itself—immediately and apart from reflexion?" M. Ribot has examined 103 persons, in order to obtain a "partial and provisional answer" to this question. He thus describes his method:—"I said to the subject: 'I am about to pronounce a number of words; I wish you to tell me, immediately and without reflection, whether each word calls up anything or nothing to your mind, and if it calls up anything to tell me what it is.' The answer was immediately noted down." Out of upwards of 900 replies the most frequent was "nothing," the only sensory image present in consciousness being the sound of the word. In other cases there was an image of some concrete example which was sometimes accompanied by a visual image of the printed or written word. Sometimes only this graphical or typographical imagery was present. M. Ribot admits that the method of experimenting with isolated words is artificial, because the unit of ordinary discourse is a sentence. He, therefore, made some trials in which abstract statements were substituted for abstract terms. The results obtained were exactly the same as in the case of detached words. It would seem, however, that in the sentence-experiments he omitted to investigate what is perhaps the most interesting point. He asked his subjects what image each sentence, as a whole, called up, but he does not seem to have inquired what image this or that word called up at the moment of its occurrence as a component of the sentence. In conclusion, M. Ribot remarks that the reply "nothing" indicates unconscious mental process. The "nothing" cannot be really nothing, because the word is *understood*. We agree with M. Ribot that unconscious processes are involved. But the mental state which

we call "understanding" a word is certainly a state of cognitive consciousness. All that we are justified in saying about it is that it is a state of cognitive consciousness which does not necessarily include a sensory image of the object cognised, and which, for the most part, occurs without such an image.

It may be said that, in reality, all understanding of words involves the presence of images, but that these images are often so fleeting and shadowy as to escape detection. We readily admit that images not unfrequently occur which are extremely vague and evanescent. But we cannot admit that these attenuated ghosts of imagery either constitute or necessarily accompany the implicit apprehensions connected with the use of words in ordinary discourse. My reasons are as follows:—(1) For the most part not even the most shadowy images are detected by introspection or retrospection. (2) We ought therefore to have some strong positive ground for assuming their presence: but no such ground is indicated. (3) How are we to account for this hypothetical imagery escaping detection? Is it because it is even more fleeting and evanescent than the vaguest of the images which are observable?

If this be the assumption, we reply that we find difficulty in conceiving any appreciable distinction between imagery which is supposed to be vaguer than the vaguest we have noted in our own minds, and no imagery at all. (4) This suggests another point; the graduated series of increasing degrees of indistinctness supplies a gradual transition from imaged to imageless apprehension. There is no abrupt separation between them. This in itself makes it easier to see that sensory images are not essential to thought. (5) Another consideration which yields the same result is this. If and so far as image is the essential medium of the apprehension of an object, we are justified in assuming that defectiveness in the image will involve correspondingly defective apprehension. Now, in one respect this is so. As the image fades the constituent parts of the object cease to be discernible. Thought loses its internal distinctness. But there is no proportionate failure in the power to distinguish the apprehended object from other objects. Now this power is all that is necessarily implied in the imageless apprehension, which is sufficient to constitute the psychical state called understanding the meaning of a word. (6) Finally, it should be noted that the mental imagery which is sometimes found to accompany the use of words is frequently not merely dim, fragmentary, and evanescent, but also more or less irrelevant. Instead of embodying essential features of the object, it represents some casual and insignificant association. Thus, in looking over what I have just written, my eye catches the word "understanding," and as my mind dwells on it for a moment

there arises the shadowy mental picture of two persons, one listening to the other. Can it be said that this picture includes, as an integral part of itself, the representation of what we mean when we use the word "understanding"? The image in this case is obviously only a collateral and somewhat irrelevant accompaniment of my apprehension of the import of the word. The term "wealth" may call up the image of a bale of goods. Can it be fairly said that the features essential to the conception of wealth are to be found within this mental picture, *quâ* picture, and that they only need to be separated from what is irrelevant by selective attention? Even the names of concrete things suggest rather what is most easy to picture than what is most essential. Thus, if I mentally dwell on the word "animal" so as to get an image, what occurs to me most readily is some vague outline of the external shape of a quadruped, and I cannot, on reflection, discover that this image contains any essential characters distinctive of the conception of an animal.

On the whole, we may fairly conclude that there is no reason for supposing the verbal train to be accompanied by a corresponding train of images where introspection fails to detect them, and there are some considerations which strongly favour the opposite view. Even in many cases where images are present, what I have called their irrelevancy forces us to regard them as mere accessories of imageless apprehension. Later on we shall see that this is true, even in the case of relevant and adequate images.

It may, however, be contended that, after all, Burke was right in affirming that where a word is unaccompanied by an image there is no notion in the mind, but only a mere sound or articulation or both; it may be contended that an unimaged thought or, at any rate, that the thought of a whole without any discriminating of the parts entering into its composition is at least as great a paradox as the use of words without any thoughts or notions at all. We reply, in the first place, that an imageless thought is no absurdity, however opposed such a conception may be to the hardened prejudice of those who have accustomed themselves to regard consciousness as a kind of picture gallery or as a magic lantern in which the slides displace each other in rapid succession. There is no absurdity in supposing a mode of presentational consciousness which is not composed of visual, audible, tactual, or other sensible experiences derived from and, in some degree, resembling in quality the sensations of the special senses; there is no absurdity in supposing such modes of consciousness to possess a representative value or significance for thought analogous in some degree to that which attaches to images, just as revived images may have a representative value in some degree comparable to that of sense-perceptions in spite of very great differences in

respect of distinctness, vividness, and quality. We do not allege that a whole may be apprehended *as such*—i.e., as a synthesis or combination—without some discernment of the plurality which it includes. What we do say is that, without discernment of the multiplicity it really comprehends, it may yet be apprehended as having a characteristic nature distinguishing it up to a certain point and, for certain purposes, from other things, and therefore as possessing the unity which such distinctness directly implies. In this there is no absurdity, but the assumption that words are commonly used in ordinary discourse without being even imperfectly understood involves a very great absurdity. It is ridiculous to suppose that we can talk or write about intricate topics, combining our words with appropriateness and fluency, borne along by the strongest interest in our own discourse and feeling that we intimately understand what we say and yet have nothing in our minds or on our lips but a series of mere sounds. Were Burke's speeches against Warren Hastings nothing for the consciousness of the speaker but the train of motor and auditory images and sensations involved in their mere delivery? If it be said that the words operate through their pre-acquired associations, the point at issue is decided in our favour, for the association can only work by suggesting something which we call the meaning of the word.

Hobbes, who was well aware that for the most part words are unaccompanied by images, being debarred by the whole spirit of his philosophy from admitting anything of the nature of imageless thinking, has recourse to the desperate expedient of ranking ordinary discourse with such actions as walking, which have become automatic through habit. "Ratio now is but oratio, for the most part, wherein custom hath so great a power that the mind suggesteth only the first word; the rest follow *habitually*, and are not followed by the mind; as it is with beggars when they say their pater-noster . . . having *no images or conceptions* in their mind answering to the words they speak." This is indeed a desperate resort; language shares the plasticity of thought itself; it is being incessantly adapted to new occasion in the most delicate way, new combinations of words accompanying new combinations of meaning. Speaking physiologically, our discourse, both internal and external, is connected with the higher and imperfectly organised centres. It lacks the uniformity and fixity of automatic processes. It is also distinguished from them by its dependence on attention; we can, it is true, utter words while our attention is fully occupied in another direction, but the distinction between such mechanical utterance and anything which can be called "discourse" is very marked. It is necessary to "discourse" that the mind should "follow the words" and control their combination from

moment to moment. To suppose that "mental trains" which interest and engross attention and produce exhaustion consist in mere automatic flow of words is the acme of absurdity. The same conclusion follows from our ability to reproduce the substance of what we have heard or read in language of our own differing from that in which it was originally conveyed.

A more plausible explanation than that which has been quoted from Hobbes has been advanced by many nominalist writers, of whom Berkeley and Dugald Stewart may be taken as representatives. According to this view, words are symbols which, like those of algebra, can, to a large extent, be manipulated without being interpreted. "A little attention," says Berkeley, "will discover that it is not necessary (even in the strictest reasonings) significant names which stand for ideas should, every time they are used, excite in the understanding the ideas they are made to stand for—in reading and discoursing, names being for the most part used as letters are in algebra." This account of the matter is better than that of Hobbes, inasmuch as it provides an exercise for the attention. But, unfortunately, the direction which it assumes the attention to take is precisely the direction which it does not take. Where signs fulfil their function by serving as provisional substitutes for the things signified, the mind directly occupies itself with these substitutes and with their combination in accordance with prescribed rules. Now, we do not ordinarily concentrate our thoughts on the words which occur in our own discourse or in that of others. When the words fulfil their function best they are least obtrusive. When, through weariness or for any other reason, we have difficulty in grasping the meaning, the signs themselves arrest our attention. We usually disregard them as we disregard the visual magnitude of objects which serves merely as a sign of their real magnitude. Another point in which the analogy between words and algebraic symbols fails is the absence of rules of operation determining verbal combinations. Grammatical rules are obviously inadequate. Dugald Stewart thinks that what is needed is supplied by the logical principles of inference. The futility of this suggestion becomes evident when we consider how extremely small a portion of ordinary discourse, whether spoken or written or merely mental, consists in purely formal reasoning. In such reasoning the starting point is given in certain combinations of terms supposed to have fixed values and the process consists in educing for these certain other combinations merely by the application of certain fixed rules of combination. Procedure of this kind is a special task set for the student of formal logic, and to the beginner who has had no mathematical training the mental attitude which it involves is unfamiliar and often repellent.

Ordinary reasoning is not of this kind any more than a living man is a skeleton. Even if it were, Stewart's theory would still cover only a comparatively small part of the facts, for reasoning is but a small part of the discourse of all but those whose special business it is to reason. It is also to be noted that words in common usage do not possess the fixity of meaning necessary to the elements of a formal calculus. On the contrary, their import is perpetually shifting according to the circumstances under which they are applied and the context in which they occur.

The inadequacy of Berkeley's explanation was perceived by another extreme nominalist, Dr. Campbell. Campbell realises the difficulties of the case more fully, and makes a more serious attempt than any other writer who supposes that the flow of thought consists for the most part in a series of words which do not express meanings, but are substituted in their stead. "That mere sounds," he says, "which are used only as signs, and have no connection with the things whereof they are signs, should convey knowledge to the mind, even when they excite no idea of the things signified, must appear at first extremely mysterious. It is therefore worth while to consider the matter more closely."* The principle on which he bases his explanation of the mystery is "that ideas associated by the same idea will associate one another. Hence it will happen that if from experiencing the connection of two things there results, as infallibly there will result, an association between the ideas or notions annexed to them, as each idea will, moreover, be associated by its sign, there will likewise be an association between the ideas of the signs. Hence, the sounds considered as signs will be conceived to have a connection analogous to that which subsisteth among the things signified."† The same view had been briefly indicated by Hume in a passage which Campbell quotes: "The custom which we have acquired of attributing certain relations to ideas, still follows the words"; it enables us to immediately perceive the absurdity of certain statements merely through the incongruity of the verbal combinations in which they are expressed. Hume gives as an example the proposition "*that in war the weaker have always recourse to conquest.*" It is clear that some of the objections urged against what we may call the Berkeleyan view apply to this also. The assumption on which it rests is that in the absence of imaged objects, our attention occupies itself with the arrangement of the words themselves, noting the familiarity or strangeness of their combinations. But this assumption is, as we have seen, inconsistent with ordinary experience.

* *Philosophy of Rhetoric*, vol. ii, bk. ii, ch. vii, p. 96 (my ed. is dated 1776).

† *Ibid.*, p. 49.

Besides this, Campbell's explanation is hard to reconcile with the continual changes of import which words undergo in varying circumstances and varying contexts. This would seem to make it impossible to immediately perceive the fitness or unfitness of a verbal combination through the mere influence of custom. A combination may be quite unfamiliar and yet it may be immediately felt as congruous, and even as peculiarly felicitous, if it happen to be suitable to the occasion of its employment or to its place in the organic whole of speech in which it occurs. This objection is part of a wider one. In general,* Campbell's doctrine rests on a false estimate of the amount and kind of verbal repetition which is to be found in ordinary discourse. Let any one pick out at random a sentence from a book and then let him look for another exactly like it; it is a hundred to one that he will succeed in finding one, even by a long and diligent search. Sentences, indeed, are, for the most part, composed of mere elementary conjunctions of words which have become familiar through custom. But the *point* of a sentence which interests and attracts attention usually finds expression in the relative novelty which belongs to it as a whole. This point must be in some degree seized if the meaning is to be in any measure understood. Otherwise there can be no acceptance of it as true or rejection as false, no appreciation of it as important or insignificant, no sense of its internal possibility or absurdity. When a sentence or series of sentences produces a mere blank failure to understand—a mere felt absence of meaning—it may, nevertheless, consist of quite familiar sub-combinations of words. Pope's "Song by a Person of Quality" is a good example. On the other hand, words may immediately present themselves as charged with deep and impressive significance although they are combined in strikingly unfamiliar ways—in parts of Carlyle, for example. Both the absence of meaning in the one case, and its presence in the other, may be apprehended "immediately" without having recourse to mental imagery.

EPICTETUS.

By R. J. RYLE.

THE historian of philosophy who endeavours to follow the course of speculation from the age of its ripest development in Athens to that of its first appearance in Imperial Rome, has to account for a very

* *Treatise*, bk. i, pt. 1, sect. 7.

radical change in its character. We may indicate the nature of this change by saying, with Professor Green, that under the Stoics and Epicureans philosophical investigation exchanged the task of understanding the world for that of making life bearable. We may regret the change, or we may think that possibly the earlier speculators treated somewhat too lightly the sombre sides of life. At any rate, there is much to interest us in the specimens which have come down to us of the thoughts and theories which supported such men as Seneca and Epictetus in such times as those in which their lives were lived.

Historically speaking, we have to content ourselves with a very fragmentary knowledge of the original sources of the philosophy both of the Stoics and of the Epicureans.

In the case both of Zeno, the founder of the Stoic school, or his great contemporary Epicurus, we have no completed works extant. All that exists of the writings of either is to be found only in the form of quotations and isolated fragments. On the side of Epicurus this deficiency of material is perhaps less serious, partly because of the simpler aims and objects of his teaching, but still more because his tenets were accepted and transmitted in the most dogmatic form as those of an inspired writer, and consequently have probably not been greatly modified by his successors.

But in the case of Zeno, who taught somewhere between the years 350 and 260 B.C., it is known that his doctrine underwent some modification at the hands of his successor Cleanthes, and that they were further criticised and systematically developed by Chrysippus, who was born about the year 280 B.C.

Nothing remains, however, but fragmentary portions of their works; and in fact, it is not till we come to the days of the Roman Empire that any complete writings of Stoics are to be met with. Seneca, Epictetus, and Marcus Aurelius are our chief source of information as to the doctrines of the Stoics, and by the time that we reach the epoch of these teachers foreign influences of many kinds had been impressed upon the philosophical teachings of all the schools. Thus, as Zeller remarks, "Only isolated points of the original doctrines are recorded, with at best a few arguments on which to base them, while we are much left to conjecture as to their motive or connection."

Of the teachers named, Epictetus is in some respects the most interesting. Very little is known of his personal history, beyond the fact that he was a native of Phrygia; that he was a slave to Epaphroditus, who was a freedman to the Emperor Nero, and that, late in life, when philosophers were expelled from Rome by Domitian in A.D. 89, he went to live and teach in Epirus.

He left no writings behind him, but he had a diligent disciple named Arrian, who made notes of his discourses. This same disciple also collected from out of these discourses many of the best and most characteristic of the teachings of his master, and published them under the name of the *Encheiridion* or *Manual*. The character of both these works is entirely hortatory or practical, and there is no profession in either of any special system. We meet with a good deal of repetition of certain fundamental doctrines, but as is natural in writings of the kind there is no methodical exposition of them, and there is no systematic co-ordination of the doctrines one with another. Occasionally we meet with obscurities which suggest defective reporting on the part of Arrian, and in the discourses, much more than in the better-known *Encheiridion*, the incessant recurrence of questions and answers is apt to be wearisome. But in spite of defects of this kind, there is a striking simplicity and sincerity which makes even dryness and triviality tolerable, and an earnestness which makes the reader feel that the teacher is no mere spokesman of a school of speculators, but a man thoroughly devoted to the cause which he had made the work of his life, viz., to make men better.

He represents indeed, probably very favourably, the main current of Stoic teaching, but he never claims to belong to any sect. And when he wishes his hearers to recognise by example the type of life on which they should model their own characters his ideal hero is in most cases Socrates. Often he reminds his hearers how Socrates behaved under such and such circumstances; and he refers them to Xenophon and Plato for lessons in the art of living more often than to the works of Zeno and Chrysippus.

We shall perhaps get the best notion of what the teachings of Epictetus were by first considering them under the guise of a general sketch in the form which his doctrines would have presented had they been brought together into a single discourse.

Of all the faculties (the Greek word for faculty is *δύναμις*) there is one only which has the power of contemplating itself critically and of consequent approval and disapproval.

This faculty is the Rational Faculty—*δύναμις ἡ λογικὴ*. Its function is to form judgments about "appearances." It is supreme over all other faculties. It is the one thing given to humanity which man can say is really in his own power; and it is the great distinguishing feature between man and all other things. This, then, is what constitutes essentially the being or nature of man. But this faculty wants watchful training, and the criterion which we are always to keep before us is "harmony with Nature." Are we acting in accordance with "Nature" or not? Concerning ourselves then about

none of those things which the gods, or the ruling principle of the world, have not placed in our power, and confining our voluntary activity to those only which are so, we shall always be acting without let or hindrance. This is freedom. Within this sphere and nowhere else can we speak of Good and of Evil. All good and evil is good and evil willing; all else may be agreeable or painful, but is indifferent to us—not good or evil. He who shapes his life in this course alone is worthy to claim that kinship with God which, in fact, we have by virtue of our nature as gifted with the self-contemplating faculty of Reason. The Reason of such a man is in harmony with the Reason which rules the world. In the Pantheistic language which Epictetus uses he is *Kóσμος*, that is to say, he is a citizen of the Universe.

Such, given in outline, is the philosophy of Epictetus. It shares with that of other Stoics three chief characteristics.

In the first place, it is very strictly practical. For explanations, or for analysis, whether of natural phenomena or of opinions, Epictetus cared little; and the formal logic, which is said to have been carried by Chrysippus to great completeness, is only valued by Epictetus as a subordinate though valuable means toward the attainment of the life according to nature. That it is a means to this end results from the second characteristic Stoic doctrine, the origination of which may be traced to Socrates, viz., that knowledge and virtue are identical. The logical art comes first, says Epictetus, as in the measuring out of corn the examination of the measure itself precedes the use of it for measuring the corn. It is the art by which Reason analyses itself; for the beginning of philosophy is a man's perception of the state of his ruling faculty, and such knowledge is only to be reached by self-examination. "Ignorance is the cause of wrongdoing, for the man who knows not who he is, and what the world is, nor for what purpose he exists, will not regulate either his assents or his dissents according to nature."

"Do you suppose," he says in another place, "that I voluntarily fall into evil and miss the good? I hope not."

The third great Stoic doctrine which we find in Epictetus is that concerning nature as the manifestation of God. Stoicism was always as much a religion as a philosophy, and the relation in which the world stands to God, expressed now under one and now under another phrase, was always by the Stoics taken to be the most fundamental article in their philosophical and ethical creed.

In examining this creed more closely the first problem which presents itself is that concerning the Reason, of which the essential function is said to be the right use of appearances. In the discourses of Epictetus anything which merely happens and is to be spoken of generally as an occurrence is commonly called *φαινόμενον*.

But a word which is more frequently met with is the word *φαντασία*. By this he appears to mean any impression received by the senses together with its attendant emotion. It seems to cover all the psychological ground which, in our more analytical age, we should divide up into separate factors as impressions, ideas, and feelings. Epictetus probably had in view the definition which Chrysippus is said to have given of the word—*φαντασία ἐστὶ πάθος ἐν τῇ ψυχῇ γιγνόμενον*. Now an affection of the soul or sentience of this sort is common both to men and to animals. So far there is no difference between them. Again, in men as well as in animals a *φαντασία* is quickly followed by an output of energy in the way of action. (Some such phrase as this seems fairly to give the meaning of the word *ὁρμή*, as Epictetus uses it.) They as well as animals find in *φαντασία* an impulse to activity. But in man there intervenes a process which does not exist in animals—a process of self-contemplation, reflective discrimination, by which he can not merely respond to but can make what Epictetus calls a right use of appearances. God, says Epictetus, had need of irrational animals to make use of appearances, but of us to understand the use of appearances. Thus the desires and aversions which are felt at the instigation of sensations are, in the case of one who is what a man should be, not necessarily those which any animal might feel under the circumstances, but are what it is only in the nature of a rational self-contemplating being to feel.

How then, we may ask, does this discriminative judicial activity of the rational faculty take place? There are, says Epictetus, in all men certain preconceptions or precognitions (*πρόληψεις*). Cicero gives some account of this remarkable technical term, which seems to have been a current one in the philosophy of that time.* The word *πρόληψις*, he tells us, is synonymous with *ἐννοια*, and signifies a cognition which is innate and is antecedent to experience. Thus he tells us, for example, every nation, even “*sine doctrinâ*,” has “*anticipationem quandam deorum*,” and the word *πρόληψις*, which he tells us occurs more especially in the teaching of Epicurus, is the word which would be used for such a cognition. He further describes *πρόληψις* as an anticipatory informing of the mind without which nothing can be investigated or discussed. Kant (who reminds us of Epicurus when he is dealing with human knowledge and of the Stoics when he is dealing with human morals), was taken with the word, and in his own philosophy he borrows the word *πρόληψις* to apply it to those factors which in the making up of experience determine formally our sensations in

* Diogenes Laertius (2nd century) thus defined the word—*πρόληψις ἐστὶ δὴ ἢ πρόληψις ἐννοια φυσικὴ τῶν καθ' ὅλον*.

space and time. Perhaps an even better illustration of *πρόληψις* may be found in the writings of Whewell, who regards the essence of the philosophy of discovery as consisting in what he calls the "super-induction of ideas" such as those of cause substance, polarity, &c., upon particular facts of observation.

Epictetus gives us several instances of what he means by *πρόληψις*, and it must be admitted that its employment is anything but precise. Thus he tells us that we have the *πρόληψις* of "rational" and "irrational," of "ought" or "duty," of the "beautiful" or "becoming," and so on. The quarrels between men arise not from the one having a *πρόληψις* which another lacks, but from differences in the application of these abstract conceptions. So, he says, when Agamemnon and Achilles quarrelled over the question of the restoration of Chryseis, they had no difference as to whether "what is good ought to be done," but as to whether the restoration of Chryseis is or is not what ought to be done. They applied differently the *πρόληψις* or precognition of "ought."

Here in the view of Epictetus lies the whole significance of education so far as Morals are concerned. According to Epictetus, education is learning how to adapt precognitions to particulars, a doctrine which forms a close parallel to Whewell's doctrine of discovery as consisting in the superinduction of ideas upon facts; and education has attained its object when Reason so adapts them that our life is according to nature,—when it is ordered *συμφωνως τῇ φύσει*.

This, then, is the next problem which we have to examine in the philosophy of Epictetus. To avoid misunderstanding we must remember that *φύσις* to a Greek of the age of Pericles or to a Stoic or Epicurean philosopher in the days of Epictetus did not mean quite what Nature means to us. When we talk of a theory or conception as being in accordance with Nature *our* meaning commonly is that it is a conception which does not do violence to facts of experience, which is not a mere fiction but which represents the relations of objects or events as they really are; and if we speak of a life lived in accordance with nature, we mean one which is free from artificiality and pretence. The word *φύσις* does it is true often express these meanings, but even when it does so it is always with a hint of something more. It always implies a something which we more clumsily seek to express by some such phrase as "organic growth." The *φύσις* of anything is the fixed constitution it has as the result of its own growth, that, therefore, which belongs to it essentially and specifically, and which forms its true and distinctive function or character.

Thus, when Epictetus talks of life according to nature as the life which a man should live, the fundamental thought which his

doctrine contains assumes the acceptance of his account of human nature as being distinguished from that of all other animals by the presence of a rational faculty such as he describes it. In other words, life according to nature means life in accordance not merely with the nature of physical objects, not merely in accordance with the nature of living or sensitive beings but in accordance with those capacities which we alone possess as rational beings capable of self-examination, self-approval, and self-condemnation. This, on the comparison of many of his discourses may be called the primary signification of the doctrine.

It was with this signification that the doctrine was taken up by Bishop Butler who, in the preface to his sermons, remarks that "this manner of speaking is not loose and undeterminate but clear and distinct, strictly just and true." For, he observes, Nature, if it means anything, means a system or constitution composed of several parts. Such parts taken separately may, perhaps, give us no idea of what is the true character or function of the system as a whole. "Appetites, passions, affections, and the principle of reflection considered merely as the several parts of our inward nature do not at all give us an idea of the system or constitution of this nature; because the constitution is formed by something not yet taken into consideration, namely, by the relation which these several parts have to each other, the chief of which is the authority of reflection or conscience. It is, he goes on to say, from considering the relations which the several appetites and passions have to each other, and above all the supremacy of reflection or conscience that we get the idea of the system or constitution of human nature; and from the idea itself will as fully appear, that this our nature or constitution is adapted to virtue, as from the idea of a watch it appears that its nature, constitution, or system is adapted to measure time."

Much of the apparent paradox or extravagance of Stoicism which we meet with in Epictetus disappears when we read it with the aid of Bishop Butler's more systematic development of this fundamental principle. If we are told, for instance, that blows and imprisonment, tortures and death, and the loss of friends are not contrary to nature, this language cannot but seem to us strained and artificial. And so it is if we do not distinguish, as Bishop Butler does, and as Epictetus does too, though less precisely, between what Bishop Butler calls "the several parts of our internal frame" and "the constitution or nature of it." As he puts it: "Misery and injustice are indeed equally contrary to some different parts of our nature taken singly; but injustice is, moreover, contrary to the whole constitution of that nature."

But this ethical principle of life in conformity with nature, where

nature is taken as meaning human nature considered as a system in which the several parts are subordinate to an approving and disapproving ruling faculty, acquired an additional strength by the wider use which the word *φύσις* had among teachers of the Stoic school.

For not merely is man distinguished from animals by his rational faculty, but by this faculty he is allied to the Divine power which orders and arranges all the world.

It would perhaps not be easy to say what terminology best expresses Stoic theology. In the absence of any authorised formula analogous to the creeds of Christendom, it would seem that many expressions were current simultaneously without exciting in the minds of those who used them any sense of mutual inconsistency. Thus in the *Thoughts* of Marcus Aurelius we find "God," "Nature," "Zeus," "the Nature of the All," "the Universe," "Providence," "the Gods," used indiscriminately as terms which are practically synonymous. Probably both Epictetus and Marcus Aurelius framed at least the outline of their theological vocabulary upon that which had been in common use from the time of Homer. But both, I think, distinguished between God (*ὁ θεός*) and the Gods, and used the term Zeus or God for the Divine power upon which all things are dependent. Also the relation of God to the world was often conceived as corresponding with that which exists between the Reason of man and his bodily frame, and while the body was recognised as being but a part of the Material Universe, the reason or soul was regarded as a portion of that Divine reason which is the soul of the world.

Accordingly Epictetus speaks of man as having God within him. In another place he says Zeus has placed by every man a guardian a *δαίμων* to whom he has entrusted the care of each individual. Elsewhere he says that the supreme community is that which is composed of men and God, and that men only are by their nature formed to have communion with God being by means of reason conjoined with him.

Since then, in the Stoic system, that which constitutes the essential characteristic of humanity, viz., the reason of man, is identical with, and is indeed a part of the Divine reason which is the ruling power of the Universe, it follows that conformity with nature in the sense of conformity with the supreme principle in human nature is at the same time conformity with nature in the widest sense of the word, for the nature, the *φύσις* of the one, is itself but a portion of that which is the *φύσις* of the other. As Marcus Aurelius puts it, "To the rational animal the same act is according to nature and according to reason." In this way, remarks Professor Sidgwick, "the Stoic by his theological view of the physical Universe gave to his cardinal conviction of the all-sufficiency of wisdom for human well-being, a root of cosmical fact, an atmosphere of religious and social emotion."

With his doctrine of the rational nature of man is closely connected that of human freedom.

To learn what is in conformity with nature is the first duty of a man, and the second is on all occasions to discriminate between what is and what is not in our own power. Only that is said to be within our own power which proceeds from us as rational agents. All therefore which is the expression of our essentially human nature is ours. For so much only of our life are we responsible, and nothing else ought to concern us.

Success or failure, wealth or poverty, health or disease, none of these flow directly from ourselves. You may fetter my leg, says Epictetus, but my will (*ἡ προαίρεσις*) not even Zeus can overpower.

The conception of the nature of human freedom takes two forms in Epictetus. Often he uses the word *ἡ προαίρεσις* to express it, and then he evidently has in view what we should call power of choice. At other times when he is considering not so much our active as our passive character, he uses the word *δόγμα* to signify our will or opinion of things. Thus he says not exile or pain is the cause of our doing this or that, but our own wills or opinions our *δόγματα*. The will in fact is reason in action; and in the most literal sense he holds that there is nothing either good or bad but thinking makes it so. Things external to our inmost selves are not good or bad in themselves. Our thoughts about them, the way we receive them, our *δόγματα* are our own. Our attitude toward our response to the bare occurrence is what gives it any character it seems to have.*

I have referred to Bishop Butler's development of the Stoic doctrine of Conformity to nature, and I think it would not be unfair to illustrate the view of Freedom held by Epictetus by reference to certain writings of Kant and his followers on the subject of the Practical Reason.

Although his own statements as to Freedom are crude and not precisely expressed, I have no doubt that he meant what Professor Green means when he discusses the same subject with the advantages of a definite metaphysical basis which Epictetus either lacked or ignored. "A man in willing is necessarily free, since willing constitutes freedom," says Professor Green. "There is something in you naturally free," says Epictetus, and he makes it clear throughout that the only thing which is free is "willing."

* In this respect we may trace a resemblance between the doctrine of Epictetus and that of Spinoza. Spinoza almost uses the language of the Stoics when he says he found that none of the objects of my fears contained in themselves anything either good or bad except in so far as the mind is affected by them.

In the foregoing account of Epictetus I have contented myself with description rather than with criticism, but I think it must be evident that there are many difficulties in his doctrines for which he affords no solutions. Perhaps in his defence it may be said that most of these difficulties are not the peculiar heritage of Stoicism, but are shared by other schools both of ancient and modern philosophy.

For instance, it is not easy to reconcile the absolute autonomy which is claimed for human will, with the absolute and unlimited government of the Universal Divine principle of which it is a portion.

Again it must be admitted that the doctrine which identifies wrong-doing with ignorance, stands in need of some qualification or re-statement by the side of the equally emphatic doctrine which teaches us that all good and evil is good and evil willing.

Also when we find the doctrine of the identity of the Reason and the Will insisted upon implicitly rather than as a conclusion of analysis throughout his teaching, we cannot but feel the want of some express metaphysical exposition by which to interpret it.

It is, however, only fair to recollect that Epictetus makes no claim to be a scientific expounder of philosophy.

He was in life rather a preacher of righteousness than a lecturer with a system to unfold; and those at least of his teachings which Arrian has preserved for us, cannot justly be criticised as though they were formal expositions.

His practical aim was to teach men self-knowledge, self-reverence, and self-control, and these lessons have seldom been more pithily or more persuasively put before men's eyes than they are in the *Discourses*, and in the *Encheiridion*.

SYMPOSIUM—THE NATURE AND RANGE OF EVOLUTION.

I.—By H. W. CARR.

I SHALL assume that by Evolution is meant the Darwinian theory of Natural Selection. Mr. Herbert Spencer uses the word in a much wider sense, and also claims to have formulated his views independently of Darwin. I shall have occasion to notice his use of the conception of Evolution, but particular criticism of his philosophy is not my present purpose.

The question that I propose to discuss under this title is the question of the relation of the Darwinian hypothesis to metaphysical

theory. The value of the hypothesis as a scientific theory of origin will, I imagine, be allowed by everyone. I, at any rate, have no intention of calling it in question. But an attempt has been made to carry the theory into the domain of subjective analysis, and if not exactly to explain by it the nature of knowledge, at least to raise a previous question as to any judgment concerning ultimate reality. It is this distinctly philosophical question that I wish to discuss.

Professor Alexander, in his most interesting symposium paper on "Has the Perception of Time an Origin in Thought?" read before us last session, has given expression in the most concise manner to the view that I propose to examine. "It is quite true that Kant did not answer Hume. He merely postulated in another form the validity which Hume had impugned. But on purely empirical principles it is possible to answer Hume by showing how certain forms of thought come to have validity; namely, by that process of natural selection which extirpates all minds incapable of thinking in these forms. The real answer to Hume is given by Darwinism." (*Proc.*, Vol. 2. Part II, p. 53). So far as concerned the question at issue in that Symposium, Mr. Hicks replied that "It is a manifest *hysteron proteron* to account for time, as a fact in knowledge, by resolving it into other elements which themselves involve this very factor of time, for which they are supposed to account." It certainly seems to me that that is a sufficient answer so far as the origin of the perception of time is concerned. But it is not a complete answer, and I think it is well worth while to discuss it in its fuller bearings, for it seems to me a question of fundamental importance, involving a serious dilemma. If we assert that Darwinism has answered Hume, we must, it seems to me, mean either that Hume's question was not a metaphysical one or else we must deny that there can be any true and complete metaphysic, inasmuch as one of its problems can be solved by a scientific theory. It seems to me that all that Professor Alexander has done in this paper is to reassert Hume's position in opposition to Kant. That is a very different thing to answering Hume. Time, space, and the categories, Professor Alexander considers, are not conditions of experience, not *a priori* at all, but elements of experience, and come to us in exactly the same way as other empirical elements, the only difference being that they belong to the subjective side of experience. Now, assuming that this is so, we are simply confronted with Hume's problem unchanged in every essential feature, the question of what constitutes the validity of the inference. Hume did not assert that he could not account for this validity. He did account for it by "the principle of Custom or Habit"; all that he did assert was that there was no metaphysical explanation, that no analysis of the empirical elements of knowledge

could give it. "By employing the word *Custom*," he says, "we pretend not to have given the ultimate reason of such a propensity. We only point out a principle of human nature, which is universally acknowledged, and which is well known by its effects." And he concludes: "All inferences from experience, therefore, are effects of custom, not of reasoning" (*Inquiry*, Sec. 5, Part I). Now it seems to me that if we correct this doctrine by substituting for custom or habit the Darwinian theory of Natural Selection, as Professor Alexander suggests, we have not in the least degree affected the problem so far as the validity of an inference is concerned, we are left with a scepticism as fundamental as that which awoke Kant from his dogmatic slumber.

There is, it seems to me, only one possible way in which the statement that in Darwinism is the answer to Hume can be justified, that is, by maintaining that Hume's problem was not metaphysical but purely psychological or even physiological. That it was not a question of the subjective analysis of states of consciousness with a view to discover the ultimate elements of knowledge, but a question of the origin of a certain state of consciousness in an organism. In that case the Darwinian theory is very much to the point, and Kant's answer fails not by falling short, but by missing the mark. If, on the other hand, we admit that Hume's question was a fundamental metaphysical dilemma, then we may agree or disagree as to whether Kant has answered it, but we must at least admit that the answer, if it be possible at all, must lie in the direction that Kant's answer indicated. Darwinism is not hostile to transcendentalism nor favourable to empiricism; it simply is not relevant.

Hume's problem was briefly this. Knowledge, he considered, consists in a succession of fleeting states of consciousness called impressions and ideas; substance, external or internal, material or spiritual, is an unwarrantable and contradictory assumption; what then is that association of ideas which constitutes knowledge? The answer Hume gives is that beside impressions and ideas (which differ from one another in the degree of their liveliness) there is and can be nothing. Association is due to three principles, external and indifferent to the ideas, viz., Resemblance, Contiguity, and Cause and Effect, the last of these being a result merely of custom or habit. To say that Darwinism has solved this by substituting for "custom or habit" the doctrine of natural selection, and that the true answer to the question why we associate ideas in the way we do is that in the course of evolution those minds incapable of such association have been extirpated, is to miss the essential point of the difficulty. It is likely enough that Hume himself would have accepted the substitution or addition if our biological science had been a possession

of his age, but it would have done nothing to alter the dilemma which it presented to the mind of Kant. His question: How are synthetic *a priori* judgments possible? was his challenge to the theory that experience consists merely of a succession of impressions and ideas. Kant's answer may be defective, may be wrong, may be impossible, theory of knowledge itself a myth, but no theory of the origin and development of knowledge in the conscious organism can be even relevant to the question.

There is no question in all this as to whether there is any body of ascertained fact which can be excluded from the law of evolution, whether there is any special science, physical, ethical, or religious, in which the law of progress is other than the Darwinian law of Natural Selection. This could only be a scientific question, and I wish to confine myself to the purely philosophical one. To imagine that Metaphysic can be altered and moulded by every fresh scientific theory is, to my mind, to misunderstand the nature of its problem. Its subject matter is the whole world of experience, but its particular nature is that its method is subjective, that it analyses experience as it is for thought. It may be possible that psychological and physiological science may make us infinitely better acquainted than we are now with mental processes, but it cannot directly affect the nature of consciousness as it reveals itself to subjective analysis. Hume's question was essentially metaphysical. There underlay it an erroneous psychology, no doubt, and also there was no clear marking off of psychology from metaphysic in his time. Impressions and their fainter copies, ideas, are not a true psychological account of the mental process. I doubt if any Associationist holds it in its simplicity to-day. But the important point is not the psychology but the metaphysic. Impressions and ideas were to Hume the ultimate elements in the analysis of experience, all knowledge was resolvable into these elements—body, mind, everything in experience, external or internal. This flow of impressions and ideas was alone reality, and he challenged anyone to discover any necessary relation between them. In the concept of causality he could discover nothing but two separate atomic ideas, the fact that we name one Cause and the other Effect is merely that their presence together in a certain order has led us by custom to associate them. I am quite ready to allow that the Darwinian theory is a very great advance on Hume's principle of custom or habit, and considerably affects its credibility, but it does not affect the sceptical consequence. It follows from Hume's doctrine that we cannot make any judgment about reality, it follows equally when we have improved it by adding the Darwinian hypothesis. There was no real necessity in knowledge, only a practical necessity of belief induced by the principle of habit. This is best

illustrated in the Essay on Miracles, which contended that while there was no reason in the nature of things why any physical order should exist at all, there was nevertheless a practical necessity to believe in such order, and to believe that it is absolute. I think there is a more obvious reason still against the attempt to answer this dilemma, that knowledge cannot justify itself, by postulating the Darwinian hypothesis, and that is, that the hypothesis is a complex idea which with Hume would resolve itself into impressions and ideas, and also that it assumes, with much beside, that very causality that constituted the problem. I am not concerned now to examine the question as to whether Kant has answered Hume, nor do I propose to set up any defence of the transcendental method; I only urge that Professor Alexander's re-statement of the empirical position does not, to my thinking, get rid of the fatal dilemma. It is not an answer to Hume. The question, to my mind, is not so much: Are space, and time, and the categories, elements or conditions of experience? but rather, if they be elements, Can we account for their universality and necessity? Professor Alexander suggests with regard to time, and I presume he intends also space and the categories, that its perception may have a priority of rank (p. 54). This admission seems to me to go a long way towards destroying the distinction between an element and a condition.

Mr. F. H. Bradley has touched on this same question in his recent book, in what he describes as: "An Essay in Delusion." In asserting the existence of an absolute criterion of reality, he imagines an objection, that it has been developed by experience, and at least may not be absolute. The point of the reply, as I understand it, is that metaphysical validity is necessary to the very existence of psychological knowledge, and cannot, therefore, be explained by it. "The doubt is seen, when we reflect," he says, "to be founded on that which it endeavours to question." (*Appearance and Reality*, p. 137).

This argument seems to me to tell even more decisively against the use of the concept of Evolution by Mr. Herbert Spencer, in so far as his system claims to be a philosophy. I do not, of course, deny the value of Mr. Spencer's work, I only deny that a system which Professor Wallace has described as an "encyclopædic aggregate of biological, psychological, ethical and social investigation, pursued under the general guidance of the formula of evolution by differentiation and integration" (*Prolegomena*, p. 22) has any claim to be called a philosophy. His method seems delightfully simple, to explain the more complex phenomena by investigating their origin in more simple conditions. The only objection to it is its impossibility; we cannot explain the simplest phenomenon except by the light reflected by our own consciousness. Moreover, as I have already

said, Evolution assumes the very subject matter that it attempts to explain, but that perhaps is of little importance when we postulate an "unknowable" for the reception of all ultimate conceptions.

Briefly to sum up. I acknowledge most fully that light is thrown on every question of the origin of experience by the Darwinian hypothesis. It seems to me quite reasonable, and extremely probable, that every mental process is what it is, and not other than it is, because it has been evolved by the process of Natural Selection in the course of experience. But I contend that this is quite irrelevant to the strictly metaphysical question of the nature of knowledge, that so far from explaining the validity of the inference, it rests upon that validity. To account for validity by it is not irrational, but suicidal; it leads to absolute scepticism.

II.—By G. D. HICKS.

There is little that I can find to criticise in the preceding paper. The main argument that runs through it is, so far as I can judge, perfectly sound, and expresses concisely enough the difficulty one feels in the way of the new restatement of the empirical position in reference to the theory of knowledge. Perhaps, however, the remark that "to imagine Metaphysic can be altered and moulded by every fresh scientific theory is to misunderstand the nature of its problem" is a little too unguarded. The problem of Metaphysics is, I take it, to make explicit the principles which are implicit in the empirical sciences, to examine the presuppositions on which these sciences proceed to justify them, and to determine their range and limits of application, and every advance in scientific research must necessarily furnish new materials and new aspects of that concrete whole of experience, which it is the business of philosophy to rationalise and explain. And in this respect no one can doubt the value of the principle of Natural Selection, and of the revolution it has effected in Biological science for philosophical speculation. But one must recognise at the same time the justice of Riehl's remark that "it is not absolutely necessary to construct a philosophical system out of a biological theory," however successful the latter may be in its handling of the data that fall within its scope. Each advance in science involves, as Dr. Caird puts it, "a new critical regress" in philosophy, and the result of such regress is inevitably to widen and extend our metaphysical outlook, though not necessarily to remodel our fundamental positions.

But when we are offered a Darwinian Theory of Knowledge as capable of accomplishing "on purely empirical principles" that

answer to Hume which it is alleged the Kantian transcendentalism failed to supply, one fact should, I think, at the outset be borne in mind—viz., that though it is of course true that the precise form of the development doctrine as we have it to-day was not conceived by Kant, yet the facts upon which Darwin's theory rests were by no means unknown to him. In his carefully written little work on *Kant und Darwin*, F. Schultze has shown how the thoughts of the modern evolution theory were present to the mind of Kant, and were already striving for birth. We cannot then conceive that to Kant himself the publication of the *Origin of Species* in his lifetime would have in any way vitiated his transcendental investigation of knowledge, as it is worked out in the *Critique of Pure Reason*. Undoubtedly Mr. Carr is on true Kantian lines when he maintains that the introduction of Darwinism into the problem implies a *μετάβασις εἰς ἄλλο γένος*, a leap from the problem before us into a wholly different region of thought.

What then was the problem that was present to Kant, and how did he propose to solve it? It was determined for him by his predecessors. Running through Locke's *Essay* may be found a prevailing ambiguity in his use of the word "idea," which is the root of the contradictions and difficulties into which an empirical theory of knowledge is invariably landed. When Locke describes an "idea" as due to the stimulation of sense, he means by it one particular individual phase of the mental life, which comes about under particular natural conditions, the "idea" as the psychologist regards it as a psychical event. But by the use of the preposition or mark of relation "of" he introduces quite a new conception. By the "idea of red," e.g., he refers to cognition on the part of the subject of some definitely distinguishable mark, a cognition which involves reference by the subject to this fact as distinct from himself as apprehending or knowing. An "idea" in this sense only can be defined as "whatsoever is the *object* of the understanding when a man thinks." This is the significance of "idea" in Logic or the theory of knowledge, and is altogether distinct from the psychological aspect. In the one case "idea" is the name for a process occurring, in the other it is not a process occurring, but a portion of the wider whole which we call knowledge. Hume tries to be more rigorously true to the fundamental principles of empiricism in his attempt to show how the complexity of experience is to be accounted for by the more simple and elementary components. The primary elements, the "impressions" are all individual, each is itself, and the "ideas," the "faint images of these" are likewise individual. These elementary data are in fact psychical units or events, regarded psychologically. But the same identification and confusion noticed

in the case of Locke are retained by Hume. Professor Adamson has pointed out (*Ency. Brit.*, vol. xii, p. 320) the "peculiar device" to which the latter resorts when he finds it impossible to recognise in an idea the mere copy of some original impression. He eludes the difficulty by the introduction of the qualifying phrase "manner of conceiving." "Thus general or abstract ideas are merely copies of a particular impression conceived in a particular way. The idea of space and time are copies of impressions conceived in a particular manner. The idea of necessary connection is merely the reproduction of an impression which the mind *feels* itself compelled to conceive in a particular manner." We have here precisely the illegitimate transition from the realm of psychology to that of Logic which Locke effected by his use of the preposition "of." Consistently with his fundamental principle of psychological atomism Hume can admit no necessity in thought, save in the case of "relations of ideas," where necessity signifies non-contradiction—an idea is what it is, and that is the only *must* which can appear in assertions respecting it. In every "matter of fact," on the other hand, "the contrary is still possible, because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality." With reason then regarded as purely analytical, with sensations as independent integral wholes, Hume has to account for knowledge, or, as Mr. Carr expresses it, the "validity of inference." The result reached by him is that universality and necessity are mere subjective illusions. Objectively, we have simply the repeated continuity and succession of impressions—B is found regularly in conjunction with A. "There is no object which implies the existence of any other if we consider these objects in themselves, and never look beyond the ideas which we form of them. Such an inference would amount to knowledge, and would imply the absolute contradiction of conceiving anything different. But as all distinct ideas are separable, it is evident there can be no impossibility of that kind" (*Treatise*, III, p. 6, in which three sentences Hume seems to express in so many words what knowledge implies, and to assert its impossibility). Subjectively, necessity is reduced, as Mr. Carr points out, to the result of Custom or Habit. The habitual conjunction of impressions and ideas, the ease and rapidity thus acquired by the mind in passing from any given impression to an idea, give rise to the "feeling" or "belief" in the supposed necessity of the causal connection among parts of experience, and we mistake an accidental subjective association based on the sensitive side of our nature, for an objective necessity in the facts themselves. Necessity becomes, as Mr. Huxley has phrased it, "a gratuitously-invented bugbear." What, then, was the question

which Hume bequeathed to his successors? It has nowhere been better stated than by Hume himself. "All my hopes vanish," he says in the well-known confession of the Appendix to the *Treatise*. "when I come to explain the principles that unite our successive perceptions in our thought or consciousness. I cannot discover any theory, which gives me satisfaction on this head. In short, there are two principles, which I cannot render consistent; nor is it in my power to renounce either of them, viz., that all our distinct perceptions are distinct existences, and that the mind never perceives any real connection among distinct existences." Kant's answer, imperfect as it may be, and unfreed as it was from the admixture of irrelevant psychological considerations, is at least, as Mr. Carr urges, on the right lines. For it was the recognition of the fact that knowledge can only be explained by an analysis of the elements of knowledge *as they exist for a conscious mind*, that in all knowledge there was a synthesis of a peculiar kind, which did not lend itself to be treated as one of the facts forming the matter of knowledge, in short that the mind that observes cannot itself be explained from the point of view of an outside observer. The Copernican revolution effected by Kant seems to me precisely this, that he made it possible to separate the really logical question from the psychological, and the answer to Hume consisted in his shifting the ground from the latter to the former. And so had he "merely postulated *in another form* the validity which Hume had impugned," it would still be true that the postulate implied a tremendous advance in philosophical thinking. But I cannot admit that this is a fair estimate of Kant's achievement. What he "postulates" is the fact of ordinary experience, which indeed Hume postulated no less, and on this basis argues to the truth of the *a priori* conditions, without which that experience could not be. The nerve of the proof consisted in showing that Unity or Synthesis, which is neither a mechanical conjunction of parts nor a psychological association, but a Unity or Synthesis, which is itself the very act of knowing, is the indispensable condition of all experience, the elements of which are never psychical units, but elements of knowledge, accompanied, to use his own peculiar phraseology, by the "I think." It is true this Unity is an analytic unity in so far as it requires the manifold of sense in order to differentiate itself, but this sensuous manifold does not *per se* constitute a part of experience. The function of the Categories, the ways in which the Unity of self is realised in an object, is to give objective significance to the particulars of sense, it being shown that objectivity implies just those elements of universality and necessity which the Unity of Self-consciousness can alone supply. And when, further, Kant draws the distinction later between this Unity or Self-consciousness, which

can never itself be an object of knowledge, the unity and identity of which the subject can only become aware of in the notion of an object cognized, and the empirical existence of the finite subject, he has, in fact, virtually drawn the distinction, which appears in the Hegelian philosophy, between thought as objective and thought as a subjective moment of the finite mind, or the distinction, as it appears in the pages of Mr. Bradley, between an idea as an existent event and an idea as content or meaning, between the "that" and the "what."

Such being what I take to be the gist of the transcendental position in regard to knowledge, I proceed to ask you, if it can be regarded as invalidated or replaced by an empiricism based on the theory of Natural Selection. The point of the contention is, I take it, that Hume's empiricism failed because he confined his attention to the individual, but that what it may not be possible for the individual empirically to acquire may be possible for the race. This "psychogenetic" theory of knowledge is perhaps best stated by Mr. G. H. Lewes, who, following Mr. Spencer, claims it as a *via media* between the thorough-going empiricism of Hume and the transcendentalism of Kant. Knowledge, such as we possess, Mr. Lewes regards as "partly connate, partly acquired, partly the evolved product of the accumulated experience of ancestors, and partly of the accumulated experiences of the individual" (*Problems of Life and Mind*, vol. i, p. 120). The *a priori* elements in knowledge are simply "the organised experiences usually termed instinct, which we inherit from our ancestors, and which form, so to speak, part of our mental structure" (*Ibid.*, p. 440). The individual subject of to-day comes into the world endowed, as it were, with "a knowledge of space, with a knowledge of causality, &c., because although these registered tendencies were originally formed out of sensible experiences, we who inherit the structure so modified only need the external stimulus, and forthwith the action of that structure produces the pre-determined result" (*Ibid.*, p. 446.) One can leave here the vexed question among biologists as to the inheritance of instincts out of account, although it is clear that if Weismann's theory be accepted, the passages quoted would have to be materially modified. But the main point to notice is, that the essential significance of the *a priori* element is, in this explanation of them, wholly missed. There may be, there certainly is, much that is faulty in the Kantian distinction of *a priori* and *a posteriori*, but here we have the error accentuated in its most objectionable form, and curiously enough precisely on a theory whose aim it is to show that there is no ultimate distinction in kind. The *a priori* elements become in the developed individual just the innate ideas, which Kant had expressly declared they were

not, and however they may have originated, they exist on this view for the developed individual alongside the elements by him empirically derived as unique and distinct, and the difficulty of conceiving how such heterogeneous facts could fall together in cognition appears not to be felt. And this alone, it seems to me, is sufficient to render them of none avail in regard to the problem of knowledge. But the fatal objection is that the theory is the result of a confusion between two problems which lie in totally diverse regions of thought, and the attempt to treat them as if they were one. Kant had declared in so many words that his question was "not of the origin of experience but of that which lies in it," and had pointed out that the former question belonged to psychology and the latter to a critique of knowledge.

Psychologically, we may doubtless be able to explain how the individual comes to have certain convictions in regard to objective relations, but not the objective relations themselves which render experience possible. The former explanation is only possible on the basis of the latter, and so far as I can see there is no possibility of the procedure being reversed. In this connection the distinction drawn by Riehl (*Der Phil. Krit.*, Band II, Theil II, p. 64, s. 99) between psychological categories and logical categories is of some interest, although doubtless the expression of the distinction is capable of being advantageously modified. He uses the former term to denote the connection of perceptions with the *individual* self-consciousness, as for example the feeling of the dependence of one representation upon another, and the impulse to supplement the perceived change of the individual's psychical condition through medium of the senses. That, as Riehl points out, is one thing, the logical categories quite another. That there are forms and methods of the growth of knowledge in the finite mind, which are in no sense determinative of the nature and relations of objective fact, no one need be concerned to deny. And we may grant that instincts and forms of association of this kind are capable of transmission, if we think the purely empirical grounds that have been recently advanced against this view have failed to make themselves good. But even then it would require to be borne in mind that such association is always, as Mr. Bradley has conclusively shown, an association of content, and therefore of universals, not of individual psychical events. Association and reproduction, therefore, whether conceived of in the individual or in the race, cannot account for the universals, but themselves presuppose them. No summing up of particulars even though it be prolonged through an indefinite period of development can constitute an universal, and in regard to such transmitted factors, we should still have to ask what elements in them are *a priori* in the Kantian sense.

The mere fact of transmission, further, is no guarantee of their validity. They cannot "*come to have validity*," if the validity is not already there at the outset. On the contrary, we know perfectly well that the great mass of ordinary conceptions, which may be regarded as having been thus transmitted, are certainly erroneous, and that the result of scientific research is ever to furnish the corrective of these popular conceptions of nature and of life. And I can see absolutely no evidence that the process of Natural Selection tends in any way to extirpate those minds which conduct their thinking in the popular forms. Indeed, experience teaches us that even the Scientist is compelled in most cases to reserve his scientific conceptions for his "Sundays of speculation," and in his intercourse with the ordinary world to conform himself to the popular forms of thought. And were the problem to explain how the individual comes to have a conception, for example, of an universal law of causality, the objection urged by Riehl (*Ibid.*, p. 80) would not be easy to get over, viz., that "sense perception exhibits anything rather than an absolute regularity in the sequence of phenomena, and instead of the conviction of a causal connection of things, there would be far more ground for explaining the belief in causelessness and marvels, which even yet predominate in the majority of men, as the inherited experience of the race." But to repeat, the problem is not to account for the appearance in the individual consciousness of a clear conception of the principles upon which even the most elementary act of knowing depends, but to account for the principles themselves, or in Kantian language to show what their presence in knowledge, which they first of all constitute, implies. It is not concerned with the question what portions of our knowledge arise from ourselves, or what, on the other hand, arise from the fact of our environment, but has solely to do with those principles which are the fundamental pre-supposition of all consciousness of objects, and with proving these to be such. The proof can only consist in showing that all other truths rest upon and pre-suppose them, that if they are not valid then we cannot speak of any validity in knowledge, that even Scepticism refutes itself by assuming the very principles it impugns.

Obviously, if the empiricist refuses to admit this method of proof, the *onus probandi* rests on him, either to show how experience is possible without these *a priori* elements, or else to exhibit the process by which experience can arise from something which is not experience. Then, indeed, Logic would become but a division of Psychology, and Psychology itself probably but a branch of Biology. But it must be admitted that hitherto attempts of this sort have been signally unsuccessful, and have been invariably guilty of the same *petitio principii*. For example, Mr. Lewes, in regard to this fundamental

question, is hardly beyond the position of Hume. The elementary constituents of the mental life he takes to be a series of feelings, "the basis and content of all experience." Corresponding or parallel to these feelings are a series of "neural tremors," taking place in the nervous system, produced by the action of the environment upon the organism. Feeling and neural tremor, he insists, are not two independent facts, but different aspects of the same fact—"states of consciousness are separable from states of the organism only in our mode of apprehending them." (*Study of Psychology*, p. 4.) I leave out of account, for the present, the virtual begging of the whole question in these expressions, "aspect," and "mode of apprehending," and inquire only how from these "neural units the raw material of consciousness," and the corresponding psychical atoms or "feelings," the emergence of experience is to be explained. First. Let it be observed how Mr. Lewes plays fast and loose with the notions of "subjective" and "objective." Presumably it is his design to show how the distinction is *evolved* in the course of organic life. "The objective world, with its manifold variations," he tells us, "is the differentiation of existence due to Feeling and Thought." (*Problems of Life and Mind*, vol. i, p. 12.) And again, "only when the sentient activities have become so developed that a conscious ego or personality has emerged from them, which establishes distinctions between one class of feelings and another, can this famous contrast of object and subject arise." (*Study of Psychology*, p. 11.) Here we seem to have a distinct recognition that subject and object can only have a meaning for thought or self-consciousness. But in the psychogenetic account of experience we find "this famous contrast" simply assumed from the outset, and *every* change in the nervous system has a subjective and objective aspect, the subjective aspect, as "feeling," and the objective aspect, as molecular motion. And in a wider sense, throughout his account, the object is regarded as the external world, "which is not the other side of the subject, but the larger circle which includes it," and feelings, or the subjective states, are the reactions of the sentient organism under stimuli coming from without. It never seems to occur to him to ask what the significance of "aspects," or the "larger circle," can be for a subject consisting only of successive states, nor how the consciousness of the difference between "internal and external" could possibly arise for such a being, for the problem is not even touched by a reference to stimuli and reactions which are not facts for the successive feelings at all. Next, it is to be noted that the dynamic, so to speak, by which the evolution is brought about is regarded as a process of "grouping." This notion of "grouping" is a slippery one to work with even in psychology, for it inevitably carries with it the significance of a

mechanical process, which can do but scant justice to the matter in hand. But here it is to do duty for the all-important step—the transition from the psychical units to the fact of knowledge, or, in Mr. Lewes's peculiar phraseology, from Feeling to the "Logic of Feeling." The process, namely, as regarded from the physiological side, is here conceived as a purely mechanical one, as it would be seen by an imaginary outside observer. The nervous material is stimulated from without, and there results a neural tremor, and neural tremors are "variously combined into neural groups." Definite "pathways" are thus established in the nervous apparatus, and each exercise of function modifies the character of the nervous structure, resulting in turn in an increased efficiency of function. But, as Green points out, there is nothing corresponding thereto in the case of psychical events. "Certain tremors 'grouped' will produce a specific event in the way of feeling, certain others grouped will produce another such event. The two groups may coalesce, but the product can only be a third specific event in the way of feeling, not a consciousness which, retaining the two former feelings as distinct and equally present to itself, correlates them as a change or movement. . . . The coalition of the several groups of neural tremors, which have produced feelings *a*, *b*, and *c*, may produce another feeling *d*, but this does not imply that feeling *d* is a group formed of feelings *a*, *b*, and *c*." As a matter of fact, it is nothing of the kind, but a perfectly distinct feeling, not a feeling which retains in itself the former feelings and relates them. It is the old story, you cannot get connectedness out of elements which to start with are unconnected, as the series of feelings must necessarily be from the point of view of an external observer. Or, as Professor Laurie admirably puts it (*Mind*, N.S., vol. iii, p. 65), "No sense-impression of subject is conveyed into me . . . and could not be by any possibility without committing suicide on the road." Nor does it avail to throw the strain of providing this correctedness upon the organism, as Mr. Lewes apparently does, and in so doing is followed by wary empirical psychologists of more recent date. For the organism as such, apart from the fact of self-consciousness, has no unity for itself—it is a whole made up of parts, which act and re-act upon one another. With regard to the development of the organism, one can perfectly well understand what is meant by saying that the structure is continually modified by function, and that the altered structure in its turn functions differently to a succeeding stimulus. In this case, the residue of former stimuli take the form of a modification of the organism, they are not themselves retained in their former condition. But it is quite another thing to maintain that on its psychical side the psychoplasm "is the mass of potential feeling

derived from all the sensitive affections of the organism, not only of the individual, but through heredity, of the ancestral organism." So far from *this* being "what growth is in the physical sense," it is precisely what it is not. Just as neural processes are individual particular events, which have their day and cease to be, so precisely are the "feelings." As psychical events they can neither be reproduced, nor accumulated, nor transmitted. The psychoplasm (to use Mr. Bradley's words) "is no Hades where they await in disconsolate exile, till Association announces resurrection and recall." What Mr. Lewes seeks to get is a feeling which includes within itself a manifold of feelings and their relation *inter se* and to it, "a feeling of the relations between feelings"; what he succeeds in getting is a disconnected sequence of feelings, which are assumed to arise "in the sensible excitation of the organism by something acting upon it." And on these lines the attempt to explain how "the cosmos arises in experience" breaks down. The procedure is vitiated all through by the confusion between feeling and felt thing, or, in other words, between psychical event and logical content. Mr. Lewes cannot account for the very essence of knowledge as the awareness of objective fact, because his data preclude him from reaching a subject of knowledge. "A thing," he admits, "exists for us only in its knowable relations," but such knowable relations imply a conscious unity as their ground and basis. The theory fails to explain how experience develops because it fails to explain how experience begins. "From the very first beginnings of soul-life universals are used," says Mr. Bradley, and he, too, insists that it "never would in any way be possible to pass to the stage where ideas are used in judgment," were the lower stages of the mind really what they are pictured to be in "most English psychologies." Evidently, when, as in the Evolution theory, we seek a temporal prius to account for a present fact, it is a necessary pre-supposition that the initial stage to which we refer for explanation should be in the same *yévos* as that which we propose to explain. Evolution implies continuity as well as differentiation, but in the case before us there is no common element between the two termini. From psychical events to logical contents there is "no road."

I have referred to Mr. Lewes's treatment of the subject, because it appears to show some affinity to that of Professor Alexander, which Mr. Carr makes the subject of his criticism. Professor Alexander has not, so far as I know, expressly dealt with the question concerning the origin and development of experience, and the difficulty of criticising is great because one has only isolated expressions of opinion upon which to fall back. If, then, through misunderstanding, I do injustice to Professor Alexander's view, I may hope to be

pardoned, and indeed I doubt if this Symposium could secure a better result than to draw from him a fuller treatment of the question. One finds in his writings what one does not find in Mr. Lewes's, a distinct recognition of the distinction between a physical event or a mental state and a logical content, but I cannot but think the distinction, as he draws it, loses the significance which it in reality possesses. He describes this "content" as a "quality" of the physical event, and is thus apparently enabled to establish a continuity between the states of mind and the states of "things." "The mind is a name we give to the complex or unity of what we call mental states, just as the stone is the complex or unity of the states of the stone" (*Proc.*, Vol. I, p. 18). "A thing is nothing but the ways in which it behaves to other things" (*Moral Order and Progress*, p. 38, note). It is difficult to see how this position can maintain itself in the face of such criticism as is contained for example in the first three chapters of Mr. Bradley's new book. Surely we are entitled with the latter to call for some explanation of "what the *is* can really mean." But in what sense can the states of the stone be said to possess quality or content? Clearly only as facts for consciousness, or, as Mr. Bradley puts it, "only for the observation of an outside observer." So far as I can see, Professor Alexander is simply repeating Green's contention that a thing consists in its relations, although attempting to leave out the condition, which, for Green, made relations possible. The question how states of mind come to have this peculiar quality or content, how they come to have this peculiar "mode of behaviour," is in no way solved by referring us to "qualities" of things, which are or have their qualities only as conceived. "Given a world of intelligible relations," says Green, "it is easy to account for knowledge." The modern "experientialist" is taking the reality of such a world for granted along with a theory of reality which excludes it. Even regarded psychologically, the alleged continuity breaks down, for the mental states are states through which the subject is aware, they have a unique double-sided aspect, which wholly fails in the case of the stone. Nay, there is, as Professor Alexander admits (*ibid.*), another breach in the continuity, namely, that "things" stand in causal relation to each other, whereas states of mind do not stand in causal relation to states of things. How is the principle of Natural Selection, which Dr. Romanes declares to be "nothing more than a particular case of the law of causation," to be carried through with regard to "things" (including minds), between which admittedly the causal relation does not hold? Nor can I see that anything is gained by telling us that "at a certain stage in the development of things, we arrive at that complex mode of behaviour we call conscious-

ness," that when the brain "becomes, as we say, conscious, it is no longer brain, but is consciousness itself" (*Proc.*, Vol. I, p. 19). Not so much as a clue is thereby vouchsafed to us as to how the transition from the one condition to the other is to be conceived, and at best such a mode of expression is only a descriptive account of what an outside observer might be expected to see. But the very essence of knowledge of fact is that it is not itself a fact to be known; and, unlike the qualities of "things," the characteristic feature about what Professor Alexander calls qualities or contents of states of mind is that they are *not* facts for the outside observer, but only for the mind that in them is conscious. They are not "modes of behaviour towards other things," but are the ways in which there are for consciousness "things" and their "modes of behaviour" at all. To assert that all states of mind *have* "a definite content," whose very nature consists in a reference to that which is not a state of mind, and to leave the matter there, as though the sum of "physical conditions" were sufficient to account both for the state and the content, is surely to land us in the most hopeless confusion before the problem of knowledge. I am convinced that to speak at all of the content as a "quality" of a state of mind, conceived as a physical event, is wholly misleading, and that under cover of this phraseology, a whole theory in regard to knowledge is at once assumed, which cannot stand the test of criticism. "Knowledge," as Professor Alexander himself puts it, "is on this view merely a property or quality of the thing called mind" (*ibid.*, p. 18), and we come once more to Mr. Lewes's position. And one can only reiterate, in reply, that "the thing called mind" in this sense is merely a part of what we know—an object of knowledge—and cannot have that as a quality which it pre-supposes. The confusion is intensified when we are further told that "the contents are what logicians call universals, that is, they are not limited to the particular events they qualify, but are common to many states of mind" (*Moral Order*, &c., p. 65). No, they are neither limited to particular states of mind nor are they common to many. The states of mind, as occurrences, play no part in the apprehension, which, in the finite subject, takes place by means of them, or, as Mr. Bradley puts it, "unless my state could, *as such*, perish, no object would exist." The universals spoken of are common not to "states of mind," but to objects apprehended.

Professor Alexander has worked out the "biological theory" with some fulness in regard to the development of morality, and although it is unfair to criticise a carefully-elaborated conception at the fag-end of an unpardonably long paper, I will venture upon two remarks. First, then, I would observe that in regard to moral conduct and development we have before us the same ultimate fact which presents

itself in regard to knowledge. A moral theory which regards the origin and growth of moral ideas merely as a set of facts to be observed and described by an outside spectator seems to me to fall short of the main end which lies before ethical inquiry. It inevitably does injustice to the fact that the agent that is developing is at every stage self-conscious or rational; that at every stage there is before him, as a moral being, the idea of an end to be realised, a fact which is shorn of its significance when it is represented as an object to be observed. This defect of a natural history of moral development must, I think, have manifested itself to most readers of Professor Alexander's striking lecture on "Natural Selection in Morals" (*Journal of Ethics*, vol. ii, p. 409, *seq.*). In that lecture he proposes to "watch an instance in which ideas about conduct are being changed under our eyes in what we call reform," he will "simply state what happens" in such a case. Good, but in order to exhibit the process of what he calls the "struggle for existence" of the moral ideal he has to take the ideal and the reformer as given. "Why the reformer comes to exist," he says, "is a question difficult to answer," which may well be, but surely that is the question around which the whole problem centres. It is of small avail to refer us to the "antecedents and circumstances" of the reformer, for these in themselves would make only for the *status quo*, and not tend to produce the character of "one born out of due season." And secondly, I would remark upon the peculiar transformation this biological theory has to undergo in order to be adapted to meet the facts of moral development. In the animal world the process of Natural Selection is carried on by the propagation of the favoured species and by the destruction of the rival ones—indeed, Professor Alexander appears to think that this holds good in the world of mind also so far as the forms of thought are concerned, and that "all minds incapable of thinking in these forms" are extirpated (*Proc.*, Vol. 2, p. 53)—but in the moral world, where we are "dealing not with animals as such, but with minds," "persuasion" takes the place of "the extermination of the rivals," and "education" replaces "that propagation of offspring which is accompanied by inheritance of the parents' characteristics." This being so, it is hard to see what is to be gained by including under one name two processes of such admittedly diverse character. I am far from wishing to maintain that absolute antagonism between ethical evolution and "the cosmic process," which Mr. Huxley emphasised so strongly in his recent Romanes lecture, but it seems to me that we have here precisely a case where a principle, adequate and within its own sphere, becomes inadequate when extended beyond. And I question whether for an ethical theory the points of difference from the biological process are

not vastly more important than the points of analogy. In regard even to purposive action in general, it will be remembered that Mr. Ward draws a sharp distinction between natural selection and subjective selection, and declares that the former "seems to lose in comparative importance as we advance towards the higher stages of life."

It has not been my object to question in any way the validity of the Darwinian theory in the natural sciences, where, as Professor Alexander says, it "has won all along the line." But one who has in any way followed the extensive literature on the subject cannot well avoid the suspicion that even here the evolution process is far from having reached its final formulation, and that in the course of time it may come to us from the hands of scientists themselves with an aspect that may considerably modify its import for philosophy. One need only refer, in justification of such a belief, to such a "re-statement," as has been recently given by Professor Lloyd Morgan, and his insistence on what he calls "selective synthesis," or to the wide extension which Wundt, who is at least free from the charge of being an "*a priori* philosopher," has given to Romanes's theory of "lapsed intelligence," by his attempt to show that both in the animal and vegetable worlds, organic adaptation can be traced back to primitively purposive acts of will. But be this as it may, it is clear that the function of philosophy is now to re-think the abstract scientific truth, and to determine its place in a wider synthesis. Riehl lays repeated stress upon the fact that Evolution, according to Darwin, is not itself a law, but a result of laws, and that the problem is not to find an explanation by reference to Evolution, but to explain Evolution itself. In other words, philosophy has again to ask what are the pre-suppositions necessarily involved in a process of development? What conception of reality is consistent with there being a time process, whose result is an ever-increasing fulness and richness in the world of appearance? We may figuratively speak of the undeveloped beginning as containing "the promise and potency" of the final product, but, as Mr. Bradley points out, these terms are only applicable "wherever the factor present is considered capable of producing the rest; and it must effect this without the entire loss of its own existing character" (*Appearance and Reality*, p. 385). And this means that instead of seeking to reduce the universe to its lowest terms, and expecting to find our ultimate explanation in them, we must reverse the method, and seek the explanation of the lowest in terms of the highest. It is a perfectly legitimate procedure for science to decompose the complex into the relatively simple, and in so doing it is furnishing the starting point for philosophical inquiry. But the starting point is not the goal, and it is in vain to look for a

satisfying metaphysic in the *dissecta membra* that appear as the results of scientific analysis. The Evolution process cannot be conceived as carrying us away from the truth of things, but rather as bearing us towards it. Dr. Martineau is but giving expression to a maxim as old as Aristotle when he asserts that "that which is first in time has no necessary priority in the scale of truth and reality." It is not undeveloped experience that stands in closest relationship to the real, but experience in all the richness of its concrete life and fulness.

ON THE IMMATERIALITY OF THE RATIONAL SOUL.

By DR. GILDEA.

By "*Soul*" I understand the first principle of life. By "*rational soul*" I understand the first principle not only of vegetative and sensitive life, but also of thought, which, according to Aristotle, is the highest manifestation of life. "*Immateriality*" may be understood in two senses; (1) a thing may be immaterial, inasmuch as it is not *in itself* extended and divisible; (2) a thing may be immaterial because it is not only inextended and indivisible in itself, but, in addition, *is not dependent for its existence upon that which is extended and divisible*. The former mode of immateriality is generally termed "*simplicity*." The latter is designated "*spirituality*." The rational soul is immaterial in both senses of the word. It is immaterial as not being *in itself* material, *i.e.*, extended and divisible. (a) The lowest manifestation of conscious life is found in the action of the external senses. I call this action the lowest manifestation of conscious life because (1) it is restricted to mere perception; (2) its exercise is conditioned upon the presence to the sense of an external and composite object. If, then, any action of conscious life can be ascribed to matter, it surely is the action of external sensation, *i.e.*, sensation arising from and indicative of the active presence of external objects. On the other hand, if external sensation cannot be ascribed to matter, then no action of conscious life can be ascribed to a material principle. But the action of external sensation cannot be ascribed to matter, *i.e.*, to an extended subject. The soul, in external sensation, perceives sensible and composite things by a single act and by a single form or species which represents all the parts of the composite whole, as they are in that whole. Now, an extended and divisible subject would be incapable of such perception. For, either its various parts would perceive, separately, the various portions, parts, or characters of the object by their corresponding species, or its various parts would

simultaneously perceive the whole object (as a whole) by species representing the whole object. But we cannot admit the former alternative, for to admit it would be to assert that the different parts of the composite are successively perceived, and the entire object is never perceived under the form of the whole, and this is opposed to the testimony of conscience (self-consciousness). Nor can we admit the latter alternative, for to admit it would be to assert that then the entire object is perceived by every portion of the soul, and this also is opposed to the testimony of the conscience. The power, then, of perceiving sensible things cannot belong to matter. The force of the argument just employed is admitted by Bayle, who writes as follows: "The unity which belongs to thinking beings is unity properly so called, for if the thinking substance were one only in the way in which a globe is one, it could never perceive an entire tree, it could never experience the pain which the blow of a stick causes. This may be proved as follows: Consider all the parts of the world painted on some globe. Certainly on a globe of this kind you will see nothing which contains all Asia, or even an entire river. The place which represents Persia is certainly not the same as that which represents the kingdom of Siam; and you distinguish a right and a left side in the place which represents the Euphrates. It follows from this that if such a globe were capable of knowing the figures with which it is adorned, no part of it could ever say: 'I know all Europe, all France, the entire city of Amsterdam, the entire Vistula.' Each part would only know that portion of the figure which was in it; and since this portion would be so small as to be incapable of representing any place, the faculty of knowledge would be quite useless to the globe. No actions of knowledge could ever emerge from this faculty; or at least these actions of knowledge would be very different from those which we experience. For we perceive entire objects, an entire horse, *e.g.*, and this proves to demonstration that the subject affected by the representation of such objects is in no way divided into distinct parts, and by consequence is not corporeal or material." (Bayle, *Dict. hist. et critic. Art.*, Leucippe.) It might perhaps seem at first sight that the argument as handled by Bayle, while denying that matter can be affected by the representation of the entire object, admits it as possible that the various portions of matter may be modified by the perception of such portions of the object as correspond to them severally; and that thus perception, though in a very imperfect degree, may be predicated of matter. But a closer examination of the argument shows that this is not the case. For every part of matter is either extended or inextended. If extended, then the reasoning of Bayle applies in all its force, for extension includes parts; in extension we

can at least distinguish side from side. Consequently the true unity of the same subject cannot be found there unless some simple principle be granted which informs the matter, and from which the faculty of operation and the operation itself proceed. On the other hand, if the part be inextended it is idle to call it matter, for in the confession of all, matter is extended. (b) If the simplicity of the soul can be proved from a single sensation, much more can it be established from the fact of many sensations experienced at once. Taste, smell, &c., are as diverse subjectively as flavour, aroma, &c., are diverse objectively, and yet conscience assures us that we are simultaneously affected by them. These sensations, then, must all be modifications of the same indivisible subject. For, if one sensation were the modification of one subject and another were the modification of another subject, there would be no single subject with consciousness of all. Each subject can be conscious only of its own proper modifications. (c) More clearly still is the simplicity of the soul seen in the acts of judgment and reasoning. The nature of judgment requires that two notions, those of subject and predicate, should be compared together, and affirmed or denied of each other. But a comparison between A and B would be impossible if A and B were not present simultaneously to the same subject, for a comparison between two things can be instituted only by that principle which simultaneously apprehends both. But if the soul were divisible and extended, the notions A and B would not be present to the same subject, but one notion would be present to one portion of the subject, the other notion to another portion of the subject, and thus comparison would be impossible. I cannot go through the process of reasoning, $A = B$, $B = C$, *ergo*, $A = C$, unless the perceptions A, B, C, and the judgments $A = B$, $B = C$, $A = C$ be present to the same indivisible subject. It is then one indivisible and identical thing in us which perceives, judges, infers. (d) The acts of conscious life are inter-dependent. Some acts occasion others; some presuppose others as an indispensable condition. The soul cannot will without knowledge, nor can it understand without the preliminary process of sensation. Yet it is the same subject that wills, knows, experiences sensation. I much desire to study, but it is my misfortune to be suffering at the moment from a sharp attack of headache. I judge that to study would be to increase the pain. I decide not to study and determine, instead, to rest. The Ego which experiences the pain is the Ego which desires to study. The Ego which judges that study would increase the pain is the Ego which infers that it would be better not to study, and is again the Ego which wills not to walk. The subject which wills is, then, identical with the subject which desires, reasons, judges, experiences sensation. Pleasure and duty

present themselves before me with antagonistic claims. I admit the attractiveness of the pleasure but, on the other hand, I cannot help recognising the obligation of the duty. I must decide between one and the other, and I come to a decision, let us hope, in favour of the preponderant claims of duty. I, who make this decision, am the very Ego who am conscious of the phantasm of pleasure and of the idea of duty, and of the fact that I am affected by one and the other. This consciousness, embracing in its unity these various modifications, makes manifest to us that the subject of these modes is one, simple and indivisible. “‘Un’ alma sola che vive e sente e sè in sè rigira” (Dante, *Purg.*, cant. 25).

The rational soul is, then, immaterial, inasmuch as it is not in itself material, that is to say, it is simple. But it is not only simple, it is also spiritual. Spirituality involves simplicity, but simplicity does not involve spirituality. Spirituality belongs to a much higher order than simplicity. The existence of the merely simple thing is conditioned by matter, has no existence, no operation, except in matter and through matter. But the spiritual principle exists independently of matter and, without the intrinsic concurrence of matter, exercises its characteristic operations. Such a principle is the rational soul. It informs the human body and, with it, constitutes one substantial composition. It operates in the body and needs the concurrence of the body for many of its operations. But it does not depend upon the body for its existence or, except extrinsically, for its higher operations. It has been argued that the soul is simple because it exercises operations which are simple. It will now be argued that the soul is spiritual because it exercises operations which are spiritual. If the antecedent can be established the consequent will naturally follow. Operations are the effects of the operating principle and effects cannot transcend their cause. If, then, it can be shown that operations exercised without the intrinsic concurrence of any material organ, and consequently *per se* independent of matter, can be assigned to the soul the like independence of matter must be assigned to the soul itself whence those operations proceed. Independence of matter is manifest in the operations of the intellect and of the will. It is manifest in the operations of the intellect. Conscience assures us that we exercise perceptions, judgments, reasonings, concerning objects which altogether transcend matter, such as God, virtue, relation, possibility, &c. It is not necessary for the argument that any of these objects should exist apart from the mind. Their existence may be affirmed, or doubted, or denied, but in all cases they exist as objects of intellectual perception. It is true that we need to be led (*manuduci* is the word of S. Thomas) to the knowledge of these immaterial things by our

knowledge of things that are material, and that our intellect can be informed only by species that are abstracted from matter; this is the necessary consequence of the fact that the human intellect is the faculty of a subject which is substantially united to a body; but it is none the less true that we conceive and discuss things which exclude every material element. Now this conception and reasoning cannot be dependent upon any corporeal organ. For the faculty which needs the concurrence of a corporeal organ can comprise within its ken only such objects as impress themselves upon such organs, in other words, objects which are concrete and dominated by material conditions. The rational soul, then, exercises operations which are spiritual, and consequently is spiritual in itself. "Although," says Suarez, "the intellect of a soul which is joined with a body cannot conceive the proper entity of God or an angel, or represent it, or apprehend its spiritual mode of being as it is in itself, nevertheless, with respect to the act of judgment, it truly knows that those substances are immaterial and incorporeal, and of a higher order than the substances which are subject to quantity. Such an act as this cannot be an act of a sense-power. In making such an act of judgment, the mind is elevated above the powers of sense, and abstracts from sensible things that it may judge of spiritual things as such. This act, then, is spiritual" (*De anima*, l. i, c. 19).

Not only from our perception of spiritual things, but also from the way in which the intellect perceives material things, may the spirituality of the soul be lawfully inferred. The mind regards corporeal things not as they subsist in nature, and as affected by the material adjuncts which render them singular and determinate, but under a common and universal ratio. Thus when we consider an ivory globe, which in itself is an individual, attached to time and space, defined by fixed dimensions, an aggregate of matter, &c., we may, by means of abstraction, regard not the individual but the common nature which is participated there, prescinding from all those characteristics which make it singular. Now such a power of abstraction proves that the human intellect is not an organic faculty, or one intrinsically dependent on corporeal organs. For a faculty so dependent cannot free itself from the conditions by which the organs and the concrete objects impressing themselves upon the organs are circumscribed, as is the case with the senses. "Whatever," says S. Thomas, "is received in anything, is received after the manner of the receiver. Now a thing is known in so far as its form is in the subject of the knowledge. But the intellectual soul knows a thing in its own absolute nature, for instance a stone, as a stone absolutely. The form of stone is then absolutely, according to its proper formal

ratio in the human soul. The intellectual soul is then an absolute form, and not a composition of matter and form. For if the intellectual soul were composed of matter and form, the forms of things would be received in it as individual, and thus it would only know the singular, as is the case with the sensitive powers which receive the forms of things in a corporeal organ" (*Sum. Theol.*, p. 1, q. 75, a. 5).

I trust that it is clearly understood that when Scholastics speak of the apprehension of the essence of things, they pre-suppose many previous experiences, and often also elaborate processes of inference; "ex pluribus visis," says S. Thomas, "in quibus multoties consideratis invenitur idem accidere accipimus universalem cognitionem" (*Comment in Analyt.*, post i, 42). Had we not the power of abstracting the essences of things from their sense phenomena we should have no universal ideas. Had we no universal ideas, we should have no knowledge of cause, law, principles, or relation. We should be cognisant only of a multitude of phenomenal effects, presenting neither unity, order, nor purpose. This is so with the animals. "An ox," says Kant, "has a distinct image in its mind of its stable, and also of the door of its stable. It connects the two together, but never arrives at the conclusion that 'this door belongs to this stable.'" Without universal ideas, then, no judgment, no reasoning, and also no language. The animal has feelings of pleasure and pain, and has cries, corresponding to our interjections, to express them, but it has no power of abstracting from matter, and therefore no universal ideas, and therefore no language. The faculty of speech differentiates the spiritual man from the sensuous beast, with a difference that no time and no development can bridge over. Speech has belonged to man from the first. "As far as we can trace back the footsteps of man," says Max Müller, "even on the lowest strata of history, we see that the Divine gift of a sound and sober intellect belonged to him from the very first; and the idea of a humanity emerging slowly from the depths of an animal brutality can never be maintained again in our century. The earliest work of art wrought by the human mind—more ancient than any literary document, and prior even to the first whisperings of tradition—the human language forms one uninterrupted chain from the first dawn of history down to our own times. We still speak the language of the first ancestors of our race; and this language, with its wonderful structure, bears witness against such gratuitous theories. The formation of language, the composition of roots, the gradual discrimination of meanings, the systematic elaboration of grammatical forms—all this working, which we can still see under the surface of our own speech, attests from the very first the presence of a

rational mind, of an artist as great, at least, as his work" (*Essays*, vol. i, p. 306, "On Comparative Mythology").

A most wonderful action is that of conscience. In the act of conscience the soul reflects upon itself and become at one and the same time principle and term, subject and object of its own cognition. Here it is clearly evident that the intellective faculty is independent of matter. For if the reflective act were exercised with the concurrence of a material organ it would be common to us and the brute creation. But this is admitted to be not the case. "If," says Kant, "my horse were to say to me 'I am,' I should dismount at once." "Since operation," says S. Thomas, "can belong only to the thing which is *per se* existent, that which has absolute operation *per se* must have absolute being *per se*. But the operation of the intellect belongs to it absolutely and no corporeal organ communicates in this operation, and this is proved by the fact that the intellect understands itself; like to which is nothing in any faculty whose operation is exercised through a corporeal organ, and the reason of this is that, as Avicenna points out (*De anima*, Part II, c. 2), wherever a faculty operates through a corporeal organ, the organ must mediate between it and its object. Thus the sight knows nothing except that the species of which is in the retina. Whence, since it is not possible that a corporeal organ should mediate between any faculty and the essence of that faculty, it is not possible that any faculty operating through the medium of a corporeal organ should know itself (*II Dist.* 19, q. 1, a. 1)." Yet another proof of the soul's immateriality is found in the object and the exercise of the will. Man has a two-fold appetite—a sensitive appetite, which he shares with the brutes, and a rational appetite or will, which is peculiar to spiritual substances. The sensitive appetite is restricted in its range to the "sensible good," or, more strictly speaking, to such aspects of this as are perceived to be suitable to the physical constitution of the organic nature. But the sphere in which the rational appetite lives and moves is as vast as that which unfolds itself before the intelligence. There is nothing so elevated in Heaven or so despicable upon earth that it cannot become the object of human desire. But if man can desire whatever can, from any point of view, bring peace and contentment to him, it follows that the proper object of his will is not this particular good or that, but good in general, good as such. Now only a superorganic and spiritual capacity can take good as such for its object. An organic activity can, indeed, know and desire that which is good. It can experience in things those qualities which are in correspondence with its being or at variance with it. It can distinguish between the sweet and the sour, the soft and the hard. But it cannot know that a thing on account of such and such qualities is good for it. It can

know many things that are good but it can know of none *that it is* good. This knowledge is reserved for the faculty which is apprehensive of the "*ipsa ratio boni*," and such apprehension can belong only to the activity which is independent of matter. Not only the vastness of its object but also the ethical character of the will postulates the spirituality of the rational appetite and by consequence of the rational soul. Man does not restrict his desires to the things which satisfy the animal portion of him. On the contrary, the object of the human will as such is raised as high above the organic sphere as the Heavens are raised above the earth. Man strives after virtue and wisdom, and in the strife thereafter is encouraged by the conviction that their possession will bring full contentment to him. When Pythagoras made his famous discovery he manifested his joy by offering a hecatomb. Archimedes forgot food and drink while he was engaged in his studies. Plato calls that man blessed to whom it is granted to spend his life in the contemplation of the beautiful and the good. Aristotle contends that the pursuit of truth is the only occupation that is worthy of man, and he places man's chief beatitude in the exercise of his highest faculty, the speculative intellect, upon the noblest object, the supreme good. In the strife after wisdom and virtue the body and all sensible goods are cheerfully sacrificed. But this would not be possible if the higher will were dependent upon the body or upon matter. "If," Plato makes Socrates say in the dialogue which preceded the latter's death, "the soul were nothing but a harmony, a product of the body, it would always obey and never command. But the soul, as far as we can see, acts in direct opposition to the body, inasmuch as it governs the supposed source of its existence, and through the whole of its life it fights against the body in various ways, now with severity, chastising the body with gymnastics and physic; again, more mildly, by means of admonitions, chiding its cravings, and its anger, and fear, addressing itself as though it were to another, as Homer says in the *Odyssey* :—

"Bear this evil, my soul; thou hast already borne others more cruel."

The spirituality of the soul might be further proved from the *freedom* of the will. But as, on the one hand, the freedom of the will may not be assumed since it is denied by many, and, on the other hand, it does not fall within the province of the present paper to attempt to establish that freedom, a single quotation from S. Bonaventure may be all that is permitted on this point: "The decision of the will," says S. Bonaventure, "is a judgment which the other powers obey. But judgment, according to its complete ratio, belongs to that thing whose office it is to discern between the just and the unjust, between one's own and another's. Now no power knows

what is just and what is unjust, except that alone which participates in reason and is fit to know the supreme justice, from which is derived the norm of all right. But this is only found in that substance which is to the image of God, that is to say, the rational substance. For no substance discerns what is its own and what is another's, unless it know itself and its own proper act. But never does any power know itself or reflect upon itself, if it be bound down to matter (*alligata materice*). If, then, all the powers are bound down to matter and to material substance excepting the rational alone, the rational is the only power which can reflect upon itself, and, therefore, is the only power in which there is full judgment and freedom of decision." (S. Bonav. in *L II Dist.* 25, p. 1, a. 1, q. 1.)
